296838

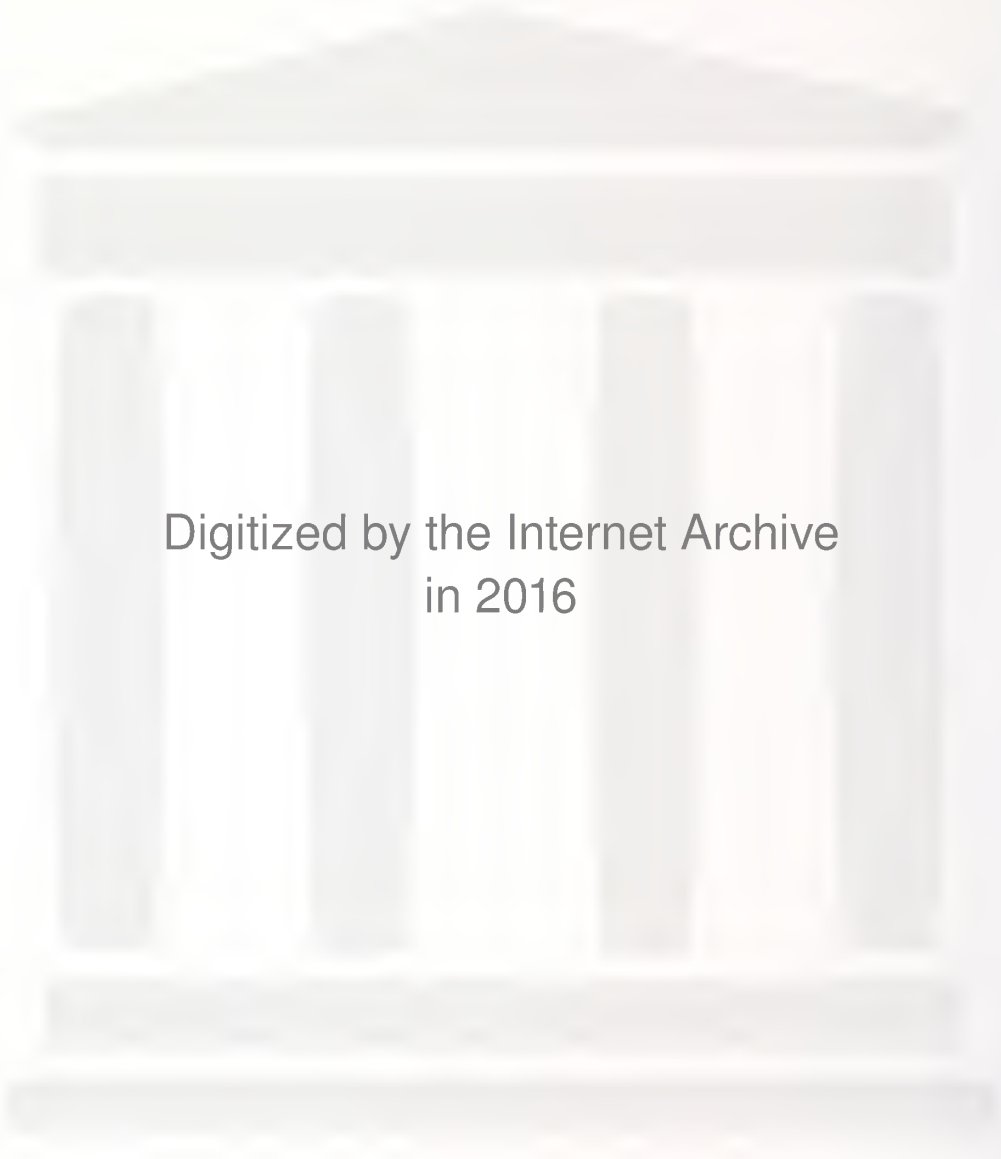


Class Journal No.

LIBRARY GENERAL FUNDS

Luther S. Bent
Binding Fund
William T. Carter
Catalogue Endowment
Louis A. Duhring
W. V. & J. M. Keating
Henry Leffman
Library Endowment
Morris Longstreth
Phila. Med. Society
Charles H. Vinton
Douglas Stockton Warren
J. William White
Caspar Wistar

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA


Digitized by the Internet Archive
in 2016

https://archive.org/details/journalofkentuck7819kent

Early Management of Head Injuries

Antimicrobial Agents, Case #13
Acute Pyelonephritis

Genital Abnormalities in
500 Hysterosalpingograms

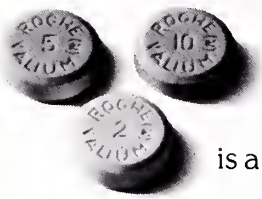
January 1980
Volume 78
Number 1

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

FEB 6 - 1980 MDS

The Journal Of The Kentucky Medical Association

A character all its own.



Valium (diazepam/Roche) is a benzodiazepine with a character all its own. Pharmacologically, it is a potent skeletal muscle relaxant and anticonvulsant (in adjunctive use), as well as an antianxiety agent. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

Valium® Ⓥ
diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Volume 78 • January 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

SCIENTIFIC ARTICLES

Early Management of Head Injuries
Christopher B. Shields, M.D., F.R.C.S., John P. Miles, M.D., Leland Albright, M.D., Diana J. Beasley, M.A. and Henry D. Garretson, M.D., Ph.D. 9

Clinical Approach to the Choice of Antimicrobial Agents, Case Number 13: Acute Pyelonephritis
Patricia A. Barnwell, B.S., John A. Van Arsdall, II, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D. 15

Genital Abnormalities in a Group of 500 Hysterosalpingograms
Hamid H. Sheikh, M.D., F.A.C.O.G. 23

The Widening Definition of Familial Polyposis (Grand Rounds)
Thomas Lindenfeld, M.D. 31

SPECIAL ARTICLES

When The Bad Apples Get Barreled 42

EDITORIAL

The Shah's Stone 49

ASSOCIATIONAL NEWS

RKMSF Accepting Applications For Scholarship Loons 51
KMA Organization Chart 53

REGULAR FEATURES

President's Page 5
Postgraduate Opportunities .. 6
Insurance Update 35
Book Reviews 41
Members in the News 51
Headquarters Activity 52

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10 (Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

296638

JUL 8 1981

Issued Monthly Under the Direction of the Board of Trustees

• EDITOR
A. Evan Overstreet, M.D.

• ASSISTANT EDITORS
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• REGIONAL EDITORS
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• EXECUTIVE EDITOR
Robert G. Cox

• MANAGING EDITOR
Joseph A. Witherington, Jr.

• ASSISTANT MANAGING EDITOR
Donna M. Young

• DEPARTMENTAL EDITORS
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific
John W. Greene, Jr., M.D., Maternal Mortality

• BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Coak, III, M.D.
Stanley Lawenbraun, M.D.
Eugene H. Conner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 1980

Vice Speaker, House of Delegates PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees .... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 2101 Nicholasville Road, Lexington 40503—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ....WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ....R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ....HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ....CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ....WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ....EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ....WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ....ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ....DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ....RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ....DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ....WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ....HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ....HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ....DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

JANUARY BUYERS GUIDE FOR JOURNAL OF KMA

Aetna Life & Casualty 14
American Medical Association 45, 46, 47, 48
Burroughs Wellcome Company 50
Classified Column 54
General Leasing Corporation 36
Insurance Corporation of America 32, 33
Kentucky Medical Insurance Company 26, 27, 28
A.P. Lee Agency, Inc. 34
Eli Lilly & Company 8
Medical Protective Company 44
Orthopedic Surgeon 25
Roche Laboratories 2, 57, 58
Smith Kline & French 37
Upjohn Company 38, 39, 40
Wyeth Laboratories 6, 7, 19, 20, 21, 22



MESSAGE FROM THE PRESIDENT

The National Health Planning and Resource Development Act of 1974 (Public Law 93-641) and the recent continuation legislation (P.L. 96-79) signed by President Carter on October 4, 1979 mandates an all-encompassing approach to shape and control the health care system. The Federal Government has specified that the purpose of this national health planning and development is to:

- Improve the health of all people.
- Increase the availability of, and access to, quality health care responsive to consumer needs.
- Restrict increases in the cost of providing health services.
- Prevent unnecessary duplication of health resources.

A new generation in health planning and health services has been created by P.L. 93-641 and P.L. 96-79. A new generation of health planning guided by consumers in lieu of health professionals is present. A new era for physicians has been mandated by these legislative acts. Health professionals are required by law to constitute a minority membership in the new health planning systems. A minority role, as mandated by law, is not easy to accept. Recent history, however, relates that an active organized minority frequently changes the course of events.

In the past, our failures as physicians to adequately respond to legislative action which restricts, regulates and controls the health care systems, resulted in the present health care provisions of P.L. 93-641 and P.L. 96-79. It is, however, the present law of the land and the game plan by which we must presently function. While physicians work collectively and personally toward repeal and/or modification of these restrictive inappropriate guidelines and regulations, they cannot simply pretend they do not exist. Reclusing and reminiscing of the "good ole days" prior to national health planning will only better serve the purposes of the bureaucrats. An informed, active, participatory minority can and ultimately will, modify this restrictive health planning scheme.

Organized medicine, both national and state, must provide the leadership in this struggle and the membership must be supportive. As a minority, if we are to succeed, we must for once be united with a single purpose.

FRANK R. PITZER, M.D.
KMA President-Elect

This is the first in a series of articles written at the request of KMA President, Robert S. Howell, M.D.

Postgraduate Opportunities

JANUARY

30 American Society for Parenteral and Enteral Nutrition, Fourth Clinical Congress, Palmer House, Chicago

FEBRUARY

15-16 Fiberoptic Bronchoscopy: Workshop, Session II* Hyatt Regency, Lexington

24-29 11th Family Medicine Review, Session I* Hyatt Regency, Lexington

MARCH

7 C. Dwight Townes Seminar** Health Sciences Center

7-8 Causes and Prevention of Environmental Cancers, Hyatt Regency, Louisville

APRIL

19 Kentucky Society for Gastronintestinal Endoscopy, Second Annual Meeting, Hyatt Regency, Louisville

28-30 Southeastern Surgical Congress, 48th Annual Assembly, Marriott Hotel, Atlanta

MAY

11-16 11th Family Medicine Review, Session II* Hyatt Regency Hotel, Lexington

JUNE

8-13 11th Family Medicine Review, Session III* Hyatt Regency Hotel, Lexington

22-28 5th Family Medicine Review** Galt House, Louisville

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161*

***For further information contact: Gerald D. Swim, Executive Director, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

Ativan® (lorazepam)
for Anxiety

V-Cillin K®

penicillin V potassium

is the most widely prescribed brand of oral penicillin



Tablets
125, 250, and 500 mg*
Oral Solution
125 and 250 mg*/5 ml

V-Cillin K*
penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin. (102175)

***Equivalent to penicillin V.**

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana 46206

900416

The Journal Of The Kentucky Medical Association

January 1980 Volume 78 Number 1

Early Management of Head Injuries

Christopher B. Shields, M.D., F.R.C.S., John P. Miles, M.D., Leland Albright, M.D., Diana J. Beasley, M.A. and Henry D. Garretson, M.D., Ph.D., Louisville

Head injuries constitute the major cause of mortality and long-term morbidity in multiple trauma resulting from automobile accidents, falls, industrial accidents or beatings. Sixty percent of all traffic accidents involve the head, and this figure reaches 70% in fatal traffic accidents. Death is attributed to the effects of the head injury in two-thirds of these patients. The completeness of functional neurological return after head injury is frequently contingent on the expertise of early management by the primary care physician. His early decisions made in the first eight hours following injury may make the difference between life and death, or between complete recovery and permanent disability. Physicians unaccustomed to management of the comatose patient may overlook basic lifesaving measures prior to transport to a neurosurgical unit.

Emergency Medical Services (EMS)

Emergency Medical Services (EMS) has saved many lives, and it is to the credit of this service that healthy young people who might have died at the scene of the accident are now productive members of society. Emergency Medical Service personnel are equipped to control external bleeding, initiate intravenous fluid administration and maintain an airway which may require endotracheal intubation. The importance of rapid lifesaving resuscitation and transport of the patient to a hospital cannot be overemphasized.

From the Division of Neurological Surgery, Department of Surgery, University of Louisville School of Medicine, Health Sciences Center, Louisville, KY 40232.

Primary Emergency Care

Many accidents occur far from a neurosurgical unit, and stabilization of the patient's condition prior to transfer to a neurosurgical facility by following the basic features of trauma care is obligatory (Tables 1 and 2).

A. The **airway** may be compromised by teeth, oral secretions, blood or tongue and must be cleared by suction and maintained by placement of an oropharyngeal tube. If awake, the patient may be placed in the lateral semi-prone position for transportation, but if comatose, endotracheal intubation is indicated. Maintenance of an adequate airway is an even more important immediate concern than control of hemorrhage, considering the extreme sensitivity of the brain to hypoxia. Customary techniques for securing the endotracheal tube in place may be self-defeating. Fixation tapes must not be placed about the neck where they might occlude the low pressure jugular venous drainage, causing further increase in cerebral venous congestion. Attachment of tapes to the face and head elevation promote unimpeded venous drainage.

Carbon Dioxide is a potent cerebral vasodilator, so that an airway obstruction and hypoventilation causing

hypercarbia produce vascular congestion, thereby contributing to increased intracranial pressure (ICP). Furthermore, pulmonary secretions stimulate straining and coughing and thus increase venous blood volume, which also increases ICP.

B. If the systolic blood pressure falls below 90 mmHg for 15 minutes in a normotensive patient or if it drops 30 mmHg below the usual systolic pressure in a hypertensive patient, **shock** is said to exist.[2] If shock exists, an extracranial source of blood loss is sought, since increased ICP is associated with the triad of hypertension, bradycardia, and irregular respiration. The most frequent sites of high volume occult blood loss are the abdomen, thorax, and long bone fractures in multiple trauma. Two exceptions to this rule are 1) in an infant harboring a large intracranial blood clot, the volume of which constitutes a significant percentage of his total blood volume, and 2) in patients with extensive scalp lacerations involving the main trunk of the superficial temporal artery which may bleed profusely causing excessive blood loss and hypotension.[3]

A cervical spinal cord injury with loss of sympathetic innervation to peripheral vessels induces peripheral vasodilitation, blood pooling, and postural hypotension. This type of shock is rapidly corrected by placement of the patient in the Trandelenberg position and fluid administration.

The early management of shock in the comatose patient consists of volume replacement with plasma and whole blood, and severe restriction of the amount of crystalloid given. Crystalloid solutions cross the damaged blood brain barrier (BBB) if cerebral contusion, laceration, or hemorrhage exists, promoting cerebral edema and increased ICP; whereas blood and plasma tend to stay within the intravascular compartment. In the absence of shock, a mildly dehydrating volume of 5% dextrose solution is instilled at 40 to 55 cc/hour.

C. **If focal neurological signs** (unilateral fixed dilated pupil, hemiparesis, hemianopsia) or **general signs of increased intracranial pressure (ICP)** (decreased level of consciousness, hypertension, bradycardia, irregular respiration) develop, 20% mannitol (Osmitrol®) infused intravenously over 15 to 20 minutes will rapidly lower the ICP and "buy time" to transport the patient to a neurosurgical center.[4] Its use may transform a deeply comatose patient to one who moves purposefully. Maximum action is of one and a half to two hours duration however, if the neurological deficit is caused by an intracranial hemorrhage, deterioration will recur within two to three hours. Repeated administration of mannitol will be of lessened value at that time. Mannitol, a hexosugar, is an osmotic diuretic agent producing its effect by drawing cerebral interstitial fluid into the vascular compartment. It acts on intact brain with normal BBB but not on damaged, contused, or lacerated brain. Thus, removal of interstitial fluids from normal brain tissue is responsible for the overall decrease in ICP. A Foley catheter should be inserted if mannitol is used since diuresis of 2,000 to 2,500 cc in one hour frequently occurs.

With the availability of mannitol and rapid transport systems in Kentucky there is little indication for placement of burr holes as an emergency procedure in primary care hospitals. However, if indicated in unusual circumstances, as lifesaving measures, burr holes and a small craniectomy should be located on the side of the dilated pupil in the sites indicated in Figure 1.

Evaluation at a Neurosurgical Center (Table 3)

If mannitol has been given at the hospital or if focal neurological deficits exist on arrival at a tertiary center, computed tomography (CT) scan and/or carotid angio-

TABLE 1

Emergency Medical Care

a) adequate airway
b) control of bleeding
c) rapid transport to hospital

TABLE 2

Primary Hospital Care

a) endotracheal intubation
b) large bore indwelling catheter
c) restricted fluid administration
d) transport to neurosurgical unit

TABLE 3

Neurosurgical Center

a) CT scan
b) evacuation of intracrinial clot
c) insertion of ICP monitor
d) control of ICP
   — head elevation
   — fluid restriction
   — hyperventilation
   — CSF removal
   — mannitol
   — barbiturates
   — steroids

gram are customary to evaluate the presence of a surgically correctable intracranial clot. Computed tomography provides rapid, reliable and precise information concerning the location and size of an intracranial hemorrhage.[5] Its ability to differentiate cerebral contusion, hemorrhage, and edema allows early, specific management to be instituted. The presence of an acute epidural or subdural hematoma is indication for immediate emergency surgery.

If neurological deterioration is rapidly progressive, skull x-rays are not performed however, portable cervical spine x-rays are indicated to determine whether a cervical fracture and/or dislocation is present. An unstable cervical spine fracture which remains unrecognized may compound the neurological injury already existing.

1. **The acute epidural hematoma** is usually located in the temporal fossa.[1] A fracture of the thin temporal squamous bone occurs with laceration and bleeding of the middle meningeal artery into the epidural space. The usual clinical setting is in a young, productive man who may sustain an apparently minor head injury with a short interval of unconsciousness. This is followed by a lucid interval, usually lasting 8 to 12 hours, which then gives way to neurologic deterioration. During the lucid interval, the hematoma gradually expands with compensation taking place by rapid cerebrospinal fluid (CSF) absorption and decreased intravascular volume, thereby maintaining normal ICP. However, when these mechanisms are exhausted, a minimal increase in the volume of clot will cause a marked elevation of ICP[6] (Fig. 2). The patient will then deteriorate rapidly and succumb within one to two hours if not effectively treated.

   This clinical pattern is recognized in 50% of patients, the remainder either being in coma from the outset or deteriorating several days following the injury. Failure to appreciate the significance of a minor head injury explains the 50% mortality rates of epidural hematomas. If the patient is at home, the onset of restful sleep falsely reassures the family that he is sleeping peacefully. Thus, all patients with head injuries, even though sustaining only transient loss of consciousness, are admitted to hospital for 24 hours of close neurologic observation. If deterioration occurs, a CT scan and/or carotid angiogram is performed. The finding of an acute epidural hematoma requires emergency craniotomy for its removal.

2. **An acute subdural hematoma** arises from laceration of a superficially located cortical artery. The frequent occurrence of concomitant cortical contusion, laceration, and brainstem injury explains the high mortality rate of 80 to 95%. Patients

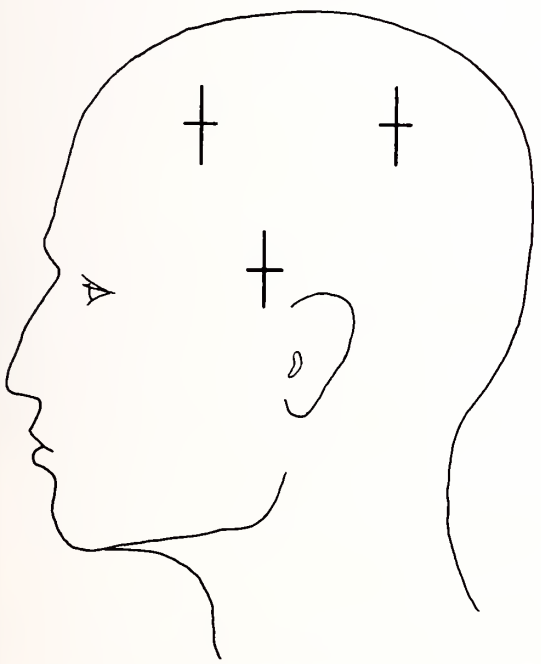


FIG. 1: Sites for placement of emergency burr holes on side of the fixed, dilated pupil are 1) 2.5 cm antero-superior to the external auditory meatus (temporal); 2) over the coronal suture 3 cm from the midline (frontal); 3) 2.5 cm behind the external auditory meatus and 3 cm from the midline (parietal).

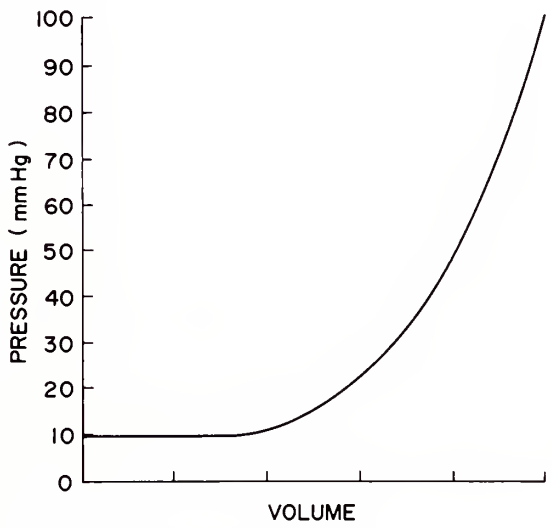


FIG. 2: Pressure-volume curve demonstrating the maintenance of normal intracranial pressure (ICP) with early increments of increasing volume during which time compensation occurs. On reaching a critical volume, the ICP will rise exponentially.

are usually comatose from the instant of the injury and CT scan or angiogram is performed within minutes following admission. This is followed by immediate craniotomy. A successful outcome depends upon rapid transport of the patient to the hospital, expeditious surgical decompression, young age of the patient, fastidious care of respiratory function, and control of increased ICP postoperatively. Surgical treatment is identical to that for an epidural hematoma except that the dura is opened, allowing for the solid subdural clot to be evacuated.

Intracranial Pressure Monitoring

The use of ICP monitoring devices at the University of Louisville has provided a precise, continuous recording of ICP. Pressures are measured from either the epidural,[7] intraventricular[8] or subarachnoid space,[9] the values from each site being identical.[8] Simultaneous measurement of mean blood pressure is also necessary. The cerebral perfusion pressure (CPP) is the difference between mean blood pressure (mBP) and ICP (CPP mmHg = mBP mmHg − ICP mmHg). For example, the normal blood pressure is roughly 95 mmHg and ICP less than 10 mmHg thus, CPP is approximately 85 mmHg. If the CPP falls below 50 mmHg, cerebral blood flow is decreased. Progressive ischemia, cerebral edema, increased ICP, and falling CPP will initiate a vicious cycle, resulting in ICP = mBP. This situation is commensurate with neurologic death.

Methods available to increase the CPP are: 1) increasing the mean blood pressure and 2) lowering the ICP.[10] Techniques of lowering the ICP include:

1. **Crystalloid restriction** of 1000-1500 cc/day in an adult.

2. **Head elevation** of 20 to 30° to promote cerebral venous drainage.

3. **Hyperventilation** on a respirator to maintain pCO_2 between 20 to 25 mmHg. CO_2 retention produces an elevated ICP by cerebral vasodilitation, and hypocapnea induces a decrease in ICP.[11,12]

4. **CSF removal.** Cerebrospinal fluid may be aspirated via the intraventricular cannula used for ICP recording if the ventricles are of moderate size. An immediate drop of ICP occurs.[8] However, patients with cerebral edema usually have collapsed slit-like ventricles, making placement of an intraventricular cannula very difficult. If this technique is to be used, CSF pressure is maintained about 20 mmHg to prevent ventricular collapse.

5. **Mannitol.** Emergency use of this drug has been discussed; however, repeated use once per day in doses of 1 gm/Kg body weight may continue to be effective in maintaining normal ICP if concomitant fluid restriction is instituted. Use of mannitol in the dose of 0.25 gm/Kg/dose, one to three times per day has recently been advocated as also being effective in lowering ICP,[13,14] provided the serum osmolality remains below 325 mosmoles/litre.

6. **Barbiturate.** Barbiturate coma currently is being advocated as a measure of last resort to lower ICP when refractory to other techniques.[15,16] This method is highly effective within minutes of barbiturate administration. Suggested mechanism of action include 1) lowering of the cerebral metabolic rate, oxygen utilization, and hence, cerebral blood volume; 2) stabilization of lysosomal and cellular membranes of glial cells, or 3) direct action on vascular smooth muscle. Doses of 100 to 200 mg/hr of pentobarbital have been used in adults, maintaining serum barbiturate levels between 2 to 4 mg%.[17] If the systolic blood pressure falls below 100 mmHg, the dose of pentobarbital is decreased. Clinical signs indicating the status of cerebral functions such as motor activity, pupillary response, and level of consciousness are not available under barbiturate coma, necessitating continuous ICP monitoring and controlled ventilation.

7. **Steroids.** The efficacy of glucocorticosteroids in the management of cerebral trauma has been controversial.[18] Early enthusiasm for their use in clinical practice was followed by human and animal experiments refuting their beneficial role. In spite of the lack of proof that steroids are of value in head injuries, widespread use of dexamethasone continues with a loading dose of 10 mg and maintenance levels of 4 mg every six hours by mouth or intravenously. Tentative evidence points to their role as a lysosomal membrane stabilizer,[19] thereby preventing release of enzymes destructive to intracellular contents. Steroids are given in full dosage throughout the duration of maximum cerebral edema, i.e., seven to 10 days and then gradually tapered over the next three days to avoid adrenal insufficiency. Mega doses of steroids (dexamethasone 100

mg/day) have been recommended as being of greater value than the standard dosage.

Minor Head Injuries

Most patients sustain trivial head injuries of inconsequential magnitude, requiring none of the prior therapeutic modalities. They may have been briefly unconscious or merely stunned at the time of impact, complaining only of a headache when initially seen and fully alert, oriented and with an intact neurologic evaluation. Vomiting is common and of little significance in children with a minor head injury, but vomiting is worrisome in an adult.

The spectre of epidural hematomas is the reason for routine hospital admission for patients with apparently trivial head injuries. Careful neurologic observation, particularly the level of consciousness, is performed hourly. The patient may be discharged from the hospital within 18 to 36 hours if free of headaches and neurologically intact. If headaches persist for two to three days, even in the absence of focal neurological signs, a CT scan is performed to exclude an occult intracranial clot. If none is present, the patient may be safely discharged from the hospital with analgesic medications taken as needed.

There is no justification for the performance of lumbar puncture in patients sustaining head injuries. It provides little if any diagnostic value, never alters therapy, and may subject the patient to major risk, causing neurologic deterioration. If an intracranial clot exists, removal of CSF by lumbar puncture may initiate transtentorial or foraminal herniation, inducing brainstem compression and terminating in sudden neurologic deterioration and death. The only indication for lumbar punctures in cerebral trauma occurs several days following a compound basal skull fracture if clinical suspicion of meningitis arises. Even then, lumbar punctures should follow a normal CT scan or angiogram.

Summary

Head injuries are the major cause of death in the patient sustaining multiple trauma. Emergency measures consist of obtaining a clear airway, maintaining adequate blood pressure, and control of bleeding. Early recognition and treatment of intracranial hemorrhage and increased ICP may not only be lifesaving, but improve the longterm quality of survival. A rational, calculated and organized approach from initial emergency care through care at a neurosurgical center is mandatory. An outline of the management for patients sustaining a major head injury or a minor uncomplicated cerebral concussion is discussed.

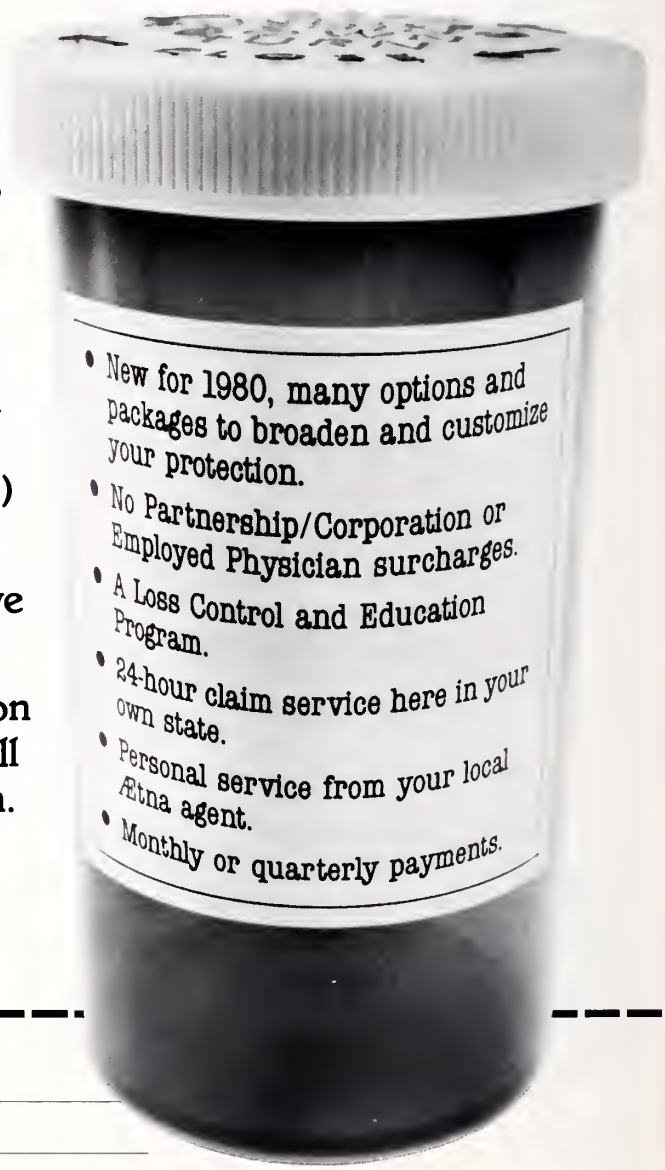
References 1. Walker AE: Injuries of the head and spinal cord. *The Management of Trauma.* Eds: WF Ballinger II, RB Rutterford, GD Zuidema. Philadelphia, Saunders Company, 1968, pp. 115-174. 2. Lillehei RC, Dietzman RH, Motsay GJ, et al.: The physiology and treatment of shock due to volume loss (trauma), sepsis, or myocardial damage. *Clin Neurosurg* 18:387, 1971. 3. Stern WE: Craniocerebral injuries. *Early Management of Acute Trauma.* Ed: E Nahum St. Louis, CV Mosby Company, 1966. 4. Wise BL, Chater N: The value of hypertonic mannitol solution in decreasing brain mass and lowering cerebrospinal-fluid pressure. *J Neurosurg* 19:1038, 1962. 5. French BN, Dublin AB: The value of computerized tomography (CT) in the management of 1000 consecutive head injuries. *Surg Neurol* 7:171, 1977. 6. Miller JD: Volume and pressure in the craniospinal axis. *Clin Neurosurg* 22:76, 1975. 7. Levin AB: The use of a fiberoptic intracranial pressure transducer in the treatment of head injuries. *J. Trauma* 17:767, 1977. 8. Lundberg N, Kjallquist A, Kullberg G, et al.: Non-operative management of intracranial hypertension. *Advances and Technical Standards in Neurosurgery,* Vol. 1. Ed: H Krayenbuhl et al. New York, Springer, 1974, pp. 1-59. 9. Vries JK, Becker DP, Young HF: A subarachnoid screw for monitoring intracranial pressure. Technical note. *J Neurosurg* 39:416, 1973. 10. Shields C: Cerebral Edema. *Anesthesia for Neurological Surgery.* Ed: K Geevarghese. International Anesthesiology Clinics, Vol. 15. Boston, Little, Brown and Company, 1977. 11. Frowein RA, Karimi-Nejad A, Richard KB: Influence of ventilation and hyperventilation on brain edema and intracranial pressure. *Adv Neurosurg* 1:114, 1973. 12. Kuhner A, Roquefeuil B, Frerebeau P, et al.: Artificial ventilation in cerebral edema—a critical analysis of manometric and gazometric conditions. *Adv Neurosurg* 1:128, 1973. 13. Becker DP, Vries JD: The alleviation of increased intracranial pressure by the chronic administration of osmotic agents. *Intracranial Pressure.* Eds: M Brock, H Dietz. New York, Springer, 1972. 14. Kuhner A, Roquefeuil B, Virguie E, et al.: Influence of high and low dosages of mannitol 25% in the therapy of cerebral edema. *Adv Neurosurg* 1:81, 1973. 15. Shapiro HM, Galindo A, Wyte SR, et al.: Rapid intraoperative reduction of intracranial pressure with thiopentone. *Brit J Anaesth* 45:1057, 1973. 16. Michenfelder JD, Theye RA: Cerebral protection by thiopental during hypoxia. *Anesthesiology* 39:510, 1973. 17. Marsh ML, Marshall LF, Shapiro HM: Neurosurgical intensive care. *Anesthesiology* 17:149, 1977. 18. Alexander E, Jr: Medical management of closed head injuries. *Clin Neurosurg* 19:240, 1972. 19. Bouzarth WF, Shenkin HA: Possible mechanisms of action of dexamethasone in brain injury. *J Trauma* 14:134, 1974.

Ætna prescribes 11.6% off 1980 professional liability insurance.

To make you feel better, the cost of professional liability insurance for Kentucky physicians has been reduced a healthy 11.6%. Yet coverages are up. (See label on right.)

Plus, physicians in their first or second year of practice will receive substantial additional discounts.

Make your incision, cut the coupon and mail. Without obligation, we'll see that you get more information.



Name or Group _____

Address _____

City _____ State _____ Zip _____

My present insurance expires on _____

Return to: Carroll York – CID manager
Ætna Life & Casualty
1290 Starks Building
455 South 4th St.
Louisville, KY 40202

Ætna
LIFE & CASUALTY

The Standard Fire Insurance Company

A Clinical Approach to the Choice of Antimicrobial Agents Case Number 13: Acute Pyelonephritis

Patricia A. Barnwell, B.S., John A. Van Arsdall, II, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D., Louisville

This is the thirteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antiboitics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

A 36-year-old gravida two, para two female presents to her physician's office with a two-day history of urinary frequency, burning on micturation and back pain. She has had three "bladder infections" in the past year, all of which were treated with oral ampicillin.

Physical examination reveals an alert, oriented, mildly diaphoretic woman with blood pressure 110/66 mm Hg, pulse 102/min., temperature 101.4°F, and respirations 20/min. There is marked tenderness to percussion over the right costovertebral angle, and bimanual palpation of the kidneys elicits tenderness on the same side. The remainder of the physical examination is normal. Hemoglobin is 14.4 gm/dl, hematocrit 42%, WBC count 15,600/mm^3 with 72% neutrophils, 10% bands, 14% lymphocytes, 3% monocytes, and 1% eosinophils. Urine specific gravity is 1.002; pH, 5.0; glucose, negative; and protein, 1+. There are 20-30 WBC/high-power field (hpf) with occasional WBC casts, one to two RBC/hpf, many epithelial cells, and many bacteria. Further work-up of this patient should include which of the following:

A. A 24-hour urine for quantitation of protein excretion.
B. Gram stain and quantitative culture of uncentrifuged clean-catch midstream urine.
C. Gram stain and quantitative culture of uncentrifuged catheterized urine.
D. Gram stain and quantitative culture of urinary sediment.
E. Intravenous pyelogram (IVP) or retrograde pyelography.

Answer: B. Gram stain and quantitative culture of **uncentrifuged** clean-catch urine. This patient has clinical and laboratory evidence of an acute urinary tract infection. Her costovertebral angle pain and tenderness, fever, leucocytosis with left shift, and low urine specific gravity all suggest upper urinary tract involvement, *i.e.*, acute pyelonephritis. A Gram stain of fresh, **uncentrifuged** urine can provide a rough approximation of the concentration of organisms in the urine and their morphology and Gram staining characteristics. The presence of one or more organisms per oil immersion field (1000 X) suggests that there are at least 100,000 ($>10^5$) organisms/ml[1].

In an alert, ambulatory patient, urethral and perineal contamination of the midstream urine specimen can be minimized if proper cleansing and collection procedures are carefully explained to the patient. Andriole[2] recommends the following procedure: the male patient, after thorough hand washing, retracts the foreskin and washes the glans with two applications of soap solution, followed by two rinses with sterile distilled water. (Soaps containing antibacterial agents such as hexachlorophene should be avoided, since even a small amount of this material in the urine specimen may prevent growth of organisms in culture.) The patient then collects a midstream specimen in a sterile container. The female patient, after washing her hands, should straddle the toilet and cleanse the vulva front to back three times, using sterile gauze pads soaked in soap solution. This is followed by two rinses with sterile

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, P. O. Box 35260, Louisville, KY 40232.

distilled water. The patient then spreads the labia with sterile gauze pads and collects a midstream specimen in a sterile container. It should be noted that this is technically difficult and, where possible, patients should be provided with assistance from nurses or trained office personnel. Since urine supports luxuriant growth of many microorganisms[1,3], specimens must be plated promptly. If this cannot be done, the urine sample must be refrigerated immediately after collection.

Interpretation of quantitative urine cultures can be difficult in patients who lack clear-cut signs and symptoms of urinary tract infection. In untreated females, the presence of 100,000 (10^5) or more organisms per milliliter of urine reflects a urinary tract infection due to the organism isolated in 80% of cases. This probability rises to 95% if two consecutive clean-catch midstream urine cultures yield the same organism in concentrations of 10^5/ml or greater[2]. Colony counts of fewer than 10^4/ml are rarely significant in females. Counts between 10^4 and 10^5 indicate actual infection in about 5% of female patients[2], and cultures should be repeated when counts fall in this equivocal range. In males, a culture indicating 10^4 or more bacteria per milliliter of clean midstream urine usually reflects urinary tract infection[2]. Colony counts indicating fewer than 10^4 organisms/ml may be significant in males; a study by Stamey *et al.* demonstrated that almost all clean midstream specimens from uninfected male subjects contained fewer than 150 organisms/ml[4]. Factors which can spuriously reduce the colony count in patients with true bacteriuria (organisms **not** due to contamination) include vigorous hydration, urinary frequency, contamination of the specimen with an antibacterial agent used to cleanse the peri-urethral area, recent antibiotic administration, total obstruction distal to the site of infection, laboratory error, and infection with organisms difficult to culture in ordinary media, *e.g., Mycobacterium tuberculosis*[1,2].

Obtaining a 24-hour urine for protein (Choice A) is not indicated at this point. An apparent proteinuria can be seen in acute urinary tract infection due to cellular debris and antibodies in the urine. Albuminuria in excess of two grams/day is a manifestation of glomerular dysfunction and is not seen in pure pyelonephritis, which causes tubular abnormalities[5].

Catheterization for urine collection should be avoided if possible, since organisms contaminating the urethral orifice may be introduced into the bladder[2]. A single in-and-out catheterization has been shown to carry a 0.5-20% risk of **causing** infection, with elderly and hospitalized patients being most vulnerable to catheter-induced infection[6,7]. Bladder aspiration by needle puncture was first described by Guze and Beeson in a study of patients undergoing laparotomy[8]. These investigators established that bladder urine is normally sterile, and that urine obtained by catheterization of an uninfected patient may contain organisms of urethral origin. Suprapubic bladder aspiration is safer and more reliable than catheterization for obtaining urine from a patient who cannot provide a clean midstream specimen. The bladder must be full at the time this procedure is done, and pressure over the planned site of entry (2-5 cm above the pubic symphysis) should produce an urge to urinate. Aspiration is done with a sterile syringe and 22-gauge needle, after shaving and disinfecting the area of entry. A local anesthetic may be used prior to aspiration[2]. **Any** growth in culture, regardless of colony count, must be considered significant when urine is obtained by this route[2].

Choice D is incorrect because the correlations between colony counts and significance of bacteriuria were established via cultures of **un**centrifuged voided or catheterized urine[1,2], and virtually all specimens of urinary sediment contain some bacteria. Further, any manipulation of the specimen prior to plating increases the likelihood of introducing contaminants.

Neither an IVP nor a retrograde pyelogram (Choice E) should be done routinely during an episode of acute infection. An IVP may precipitate acute tubular necrosis in a dehydrated patient[5]. Although the patient can be rehydrated and the IVP done with relative safety[9], the infectious process itself can cause non-specific anatomic derangements which may not be permanent, but which may obscure true underlying structural abnormalities. Radiologic findings common in acute pyelonephritis include focal or diffuse renal enlargement, ureteral ileus, non-obstructive ureteral dilation, and impaired contrast excretion[10,11]. Thus it is advisable to delay excretory urography until four to six weeks after an episode of acute pyelonephritis, unless there is evidence of nephrolithiasis or some other form of obstructive uropathy. Retrograde pyelography should be avoided in patients with urinary tract infection because of the risk of producing bacteremia[12].

The Gram stain of uncentrifuged urine demonstrates two to four Gram-negative rods per 1000-X field. The patient has no known allergies to medications. Appropriate therapy at this time would include which of the following:

A. No therapy until culture and sensitivity results return.
B. Ampicillin, 500 mg p.o. q 6 hr. for two weeks.

C. Chloramphenicol (Chloromycetin®), 500 mg p.o. q 6 hr. for two weeks.
D. Nalidixic acid (NegGram®), 1 gm p.o. q 6 hr. for two weeks.
E. Cephalexin (Keflex®), 500 mg p.o. q 6 hr. for two weeks.

Answer: B. Ampicillin, 500 mg p.o. q 6 hr. for two weeks. Of the choices given, ampicillin is probably the best, because of its activity against organisms likely to be present, the relatively low likelihood of adverse effects, and the cost. Nearly all out-patient episodes of urinary tract infection are due to *Escherichia coli*[5,13,14], and this organism is usually sensitive to ampicillin[15]. This may not be true, however, for strains of *E. coli* acquired in the hospital. Ampicillin is cleared by glomerular filtration and active secretion by the renal tubular epithelium, thereby attaining high concentrations in the urine[16]. Organisms resistant to ampicillin include *Klebsiella pneumoniae,* indole-positive *Proteus* sps, and *Pseudomonas aeruginosa.* Klebsiella and Proteus produce enzymes which split urea into ammonia; therefore, urine pH will generally be greater than 6.0 in patients infected with these organisms. Pseudomonas would be an unlikely pathogen in an otherwise healthy outpatient[5].

Treatment of an acute upper urinary tract infection should not be delayed for the 24-48 hours required for completion of culture and sensitivity tests. The genitourinary tract is the most frequent source of organisms in cases of septicemia with Gram-negative bacilli[17].

Chloramphenicol is active against most organisms responsible for urinary tract infections; however, this compound is metabolized in the liver, and antimicrobial activity is not concentrated in the urinary tract to the extent seen with the penicillin or cephalosporin antibiotics or the aminoglycosides. The potential bone marrow toxicity of chloramphenicol also makes it a less than ideal choice in this situation[16].

Nalidixic acid, although an excellent agent for the treatment of uncomplicated cystitis, is not the best choice when acute pyelonephritis is suspected. Resistance to this compound can develop rapidly in previously sensitive organisms[15,16].

Cephalexin is active against most organisms which commonly cause urinary tract infection. Aside from activity against some isolates of Klebsiella, this agent is not superior to ampicillin and is considerably more expensive. It would be a potential alternative choice in patients whose urine pH is elevated or in those with a history of **delayed** hypersensitivity to penicillin, but one must remember the small but significant potential for cross-hypersensitivity between penicillins and cephalosporins[16].

The preceding discussion does not imply that ampicillin is the best agent under all circumstances. Trimethoprim-sulfamethoxazole (Bactrim®, Septra®) would also be adequate in most situations. Uncomplicated pyelonephritis can generally be managed outside the hospital unless the patient is elderly, has serious underlying illness, or manifests signs of septicemia. Patients with signs of systemic toxicity should be treated intravenously, and blood cultures should be drawn before starting therapy.

The patient is begun on oral ampicillin, with instructions to call if she has shaking chills or if her fever does not subside. Subsequently, the urine culture yields an ampicillin-sensitive *E. coli.* >100,000/ml. Upon completion of a two-week course of ampicillin, each of the following would be appropriate **except:**

A. Suppressive therapy with trimethoprim-sulfamethoxazole (Bactrim®, Septra®).
B. Evaluate patient for anatomic abnormalities with an IVP.
C. Repeat quantitative midstream urine culture at two and eight weeks after stopping ampicillin.
D. No further follow-up necessary.
E. Evaluate renal function with BUN and creatinine, or creatinine clearance if feasible (if not already done).

Answer: D. No further follow-up necessary. Further work-up of this patient **is** indicated, since she is having repetitive urinary tract infections. A **single** episode in a man or child should prompt studies of the urinary tract, and some authorities recommend that this be done with women as well[15]. An IVP, a voiding cystourethogram and a post-voiding film are usually the first procedures done in a search for anatomic abnormalities. As noted previously, the IVP should not be done until about four to six weeks after any episode of infection. Since this patient may relapse or become reinfected during this period, she may be placed on a suppressive agent such as trimethoprim-sulfamethoxazole. After the IVP, other studies, such as cystoscopy, determination of residual volume, and evaluation of renal function may also be appropriate.

In this patient, the IVP was entirely normal, and there was no urine residual after voiding. However, a voiding cystourethrogram demonstrated a small urethral diverticulum. Following surgical correction of this abnormality, she did well and has had no further episodes of urinary tract infection.

References 1. Kass EH: Asymptomatic infections of the urinary tract. *Trans Assoc Am Physicians* 69:56-64, 1956. 2. Andriole VT: Diagnosis of urinary tract infection by urine culture. In: Kaye D, ed. *Urinary Tract Infection and Its Management.* CV Mosby Co., St. Louis, Missouri, 1972, pp. 28-42. 3. Mou TW, Feldman HA: The enumeration and preservation of bacteria in urine. *Am J Clin Pathol* 35:572-575, 1961. 4. Stamey TA, Govan DE, Palmer JM: The localization and treatment of urinary tract infections: the role of bactericidal urine levels as opposed to serum levels. *Medicine* (Baltimore) 44:1-36, 1965. 5. Riff LJM: Evaluation and treatment of urinary infection. *Med Clin North Am* 62:1183-1199, 1978. 6. Turk M, Boffe B, Petersdorf RG: The urethral catheter and urinary tract infection. *J Urol* 88:834-837, 1962. 7. Thiel VG, Spuhler O: Katheterinfekt und sogenannte infektiose (episomale) resistenz. *Schweiz Med Wochenschr* 95:1155-1157, 1965. 8. Guze LB, Beeson PB: Observations on the reliability and safety of bladder catheterization for bacteriologic study of the urine. *N Engl J Med* 255:474-475, 1956. 9. Popky GL, Pollack HM: Radiological evaluation of patients with urinary tract infection. In: Kaye D, ed. *Urinary Tract Infection and Its Management.* CV Mosby Co., St. Louis, Missouri, 1972, pp. 84-123. 10. Teplick JG, Teplick SK, Berinson H, Haskin ME: Urographic and angiographic changes in acute unilateral pyelonephritis. *Clin Radiol* 30:59-66, 1978. 11. Harrison RB, Shaffer HA: The roentgenographic findings in acute pyelonephritis. *JAMA* 241:1718-1720, 1979. 12. Mellins HZ: Radiology of the urinary tract. In: Harrison JH *et al*, eds. *Campbell's Urology*, WB Saunders Co., Philadelphia Pennsylvania, 1978, pp. 232-235. 13. Braude AI: Current concepts of pyelonephritis. *Medicine* (Baltimore) 52:257-264, 1973. 14. Gillespie WA, Lee PA, Linton KB, Rowland AJ: Antibiotic resistance of coliform bacilli in urinary infection acquired by women outside hospital: A 12-year survey. *Lancet* 2:675-677, 1971. 15. Levison ME, Kaye D: Management of urinary tract infection. In: Kaye D, ed. *Urinary Tract Infection and Its Management.* CV Mosby Co., St. Louis, Missouri, 1972, pp. 188-226. 16. Kucers A and Bennett NM: *The Use of Antibiotics.* JB Lippincott Co., Philadelphia, Pennsylvania, 1975. 17. McCabe WR, Jackson GG: Gram-negative bacteremia. *Arch Intern Med* 110:847-855, 1962.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

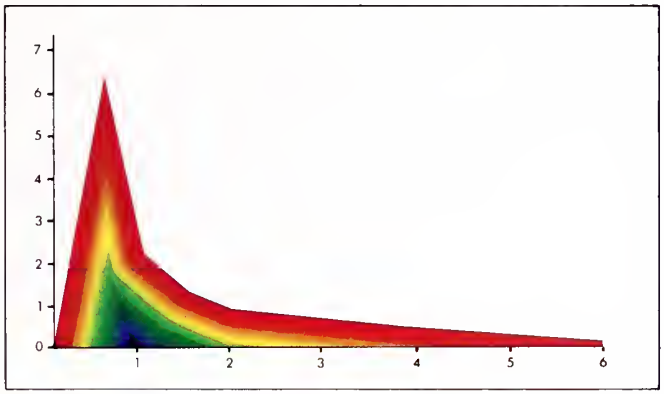
References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

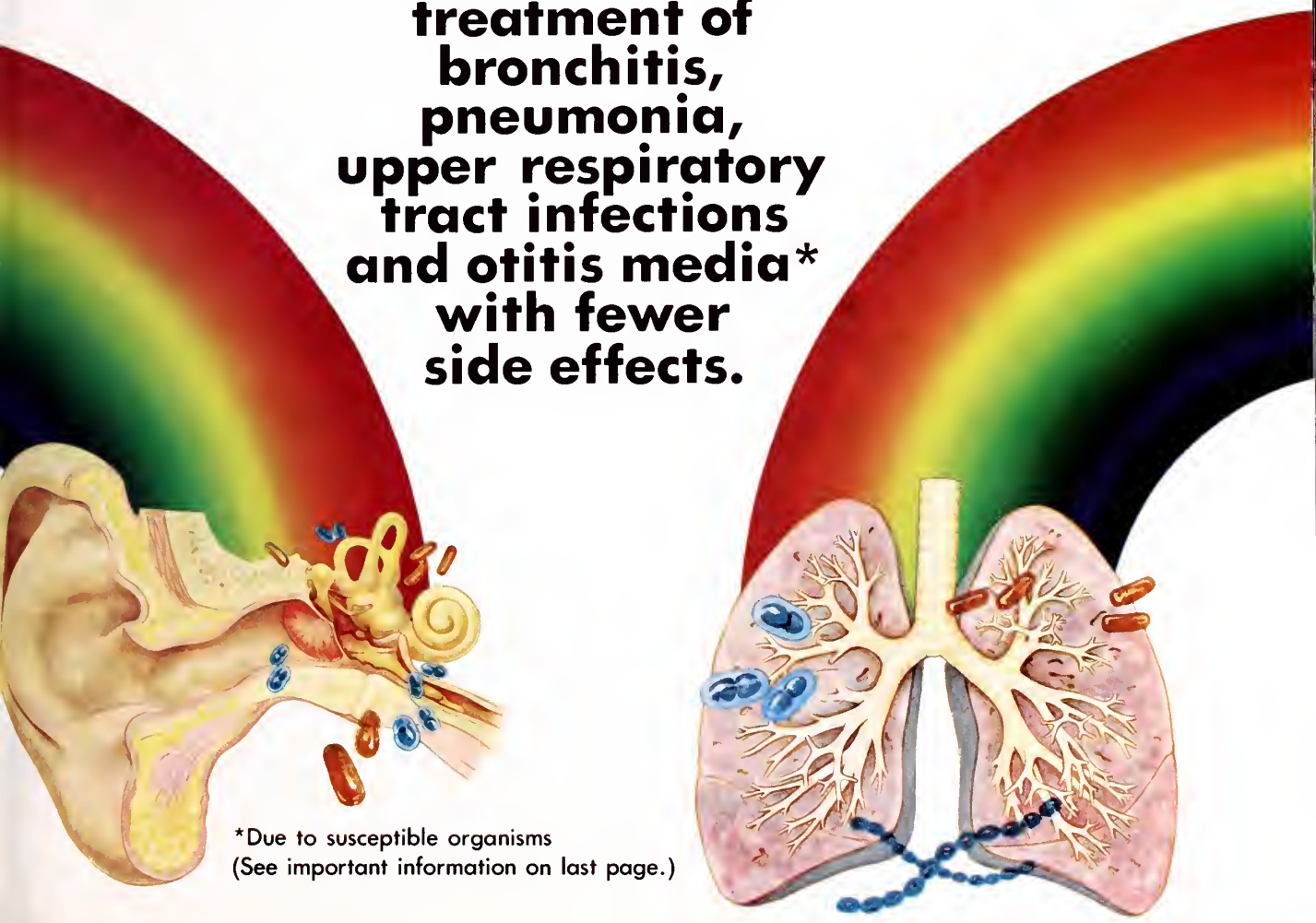
Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

more than just spectrum



New CYCLAPEN® (cyclacillin) Tablets/ Suspension

Efficacy proven in the treatment of bronchitis, pneumonia, upper respiratory tract infections and otitis media* with fewer side effects.



*Due to susceptible organisms
(See important information on last page.)

New CYCLAPEN®
(cyclacillin) Tablets/ Suspension

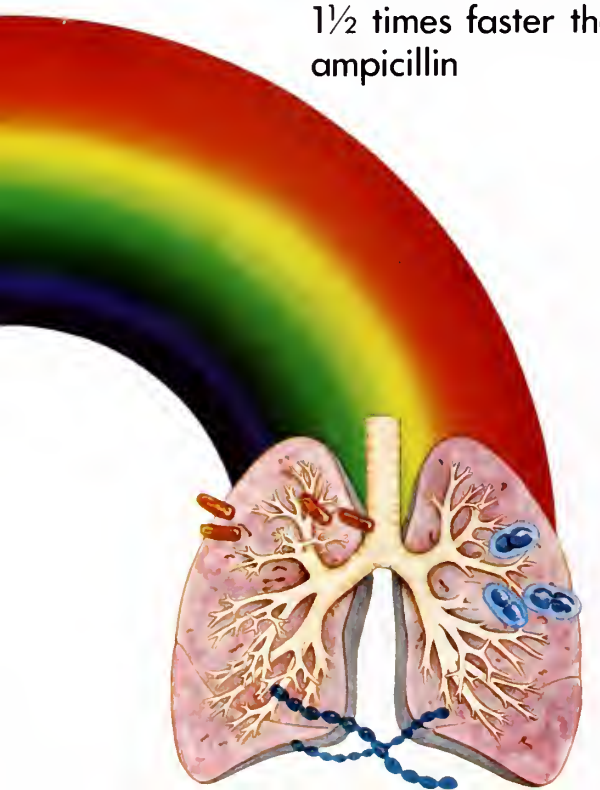
efficacy with fewer side
ampicillin confirmed in
studies of 2,58

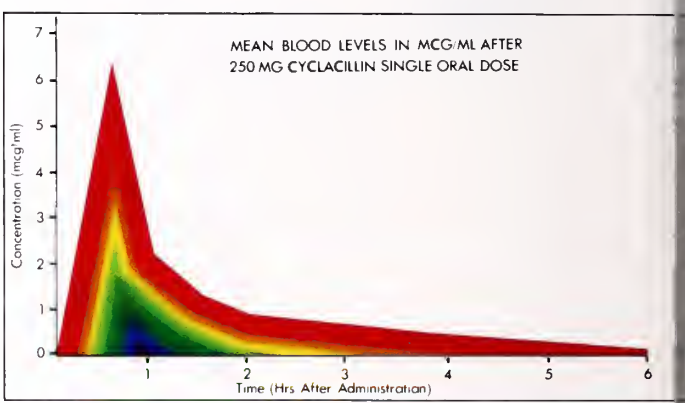
Rapid, virtually complete absorption from GI tract

Rapid onset of action—mean peak serum levels within 30 minutes

Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)

Rapidly excreted unchanged in the urine—1½ times faster than ampicillin





High cure rate with CYCLAPEN®		
Causative Organism	Bronchitis/Pneumonia†	No. of Patients
S. pneumoniae	100 / 95	73
Chronic Bronchitis† (acute exacerbation)		
H. influenzae	92	12
	Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H influenzae*	
Streptococcal Sore Throat†		
Group A beta-hemolytic Streptococcus	100 / 86	44

% Clinical Response
% Bacterial Eradication

more than just spectrum
in bronchitis, pneumonia
and upper respiratory tract infections†

*Includes all patients treated. 2,415 evaluated for safety; 1,819 evaluated for efficacy.

†Due to susceptible organisms.

Copyright © 1979, Wyeth Laboratories. All rights reserved.

effects than double-blind patients*

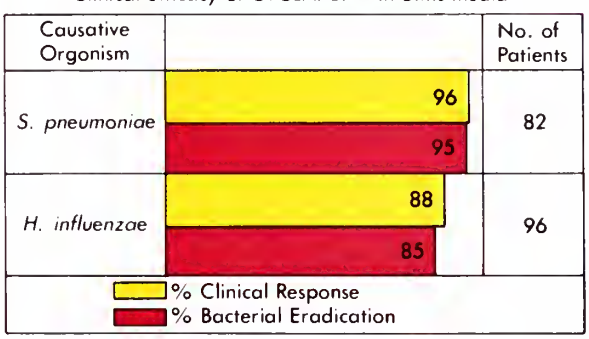


ewer side effects with CYCLAPEN® in ouble-blind studies to date[1,2]

Total number of drug-related side effects in all patients	
CYCLAPEN®	128 of 1,286 (10%) of patients
ampicillin	202 of 1,129 (18%) of patients
Difference statistically significant (P <0.001)	

more than just spectrum in otitis media

Clinical efficacy of CYCLAPEN® in otitis media†



YCLAPEN® (cyclacillin)
ffective for bronchitis, pneumonia, nd upper respiratory tract infections†

- Excellent clinical results in bronchitis, pneumonia and upper respiratory tract infections
- Significantly lower incidence of diarrhea and skin rash

Gold JA, Hegarty CP, Deitch MW, Walker BR: Double-blind clinical trials of oral cyclacillin and ampicillin, *Antimicrob Ag Chemother* 15:55-58, (Jan.) 1979.

. Doto on file, Wyeth Loborotories.

more than just spectrum

CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Wyeth Laboratories
Philadelphia, Pa 19101

ee important information on next page)

New from Wyeth Laboratories

CYCLAPEN®
(cyclacillin) Tablets/ Suspension



more than just spectrum in bronchitis, pneumonia, upper respiratory tract infections and otitis media*

- Rapid, virtually complete absorption from GI tract
- Rapid onset of action—mean peak serum levels within 30 minutes
- Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)
- Rapidly excreted unchanged in the urine—1½ times faster than ampicillin
- Significantly fewer episodes of diarrhea and skin rash than reported with ampicillin in studies to date
- Excellent clinical response and outstanding bacterial eradication documented in double-blind studies involving 2,581 patients
- New CYCLAPEN® Suspension—great-tasting raspberry punch flavor

*Due to susceptible organisms.

How Supplied

CYCLAPEN® (cyclacillin) tablets:
250 mg scored tablets
500 mg scored tablets

CYCLAPEN® (cyclacillin) for oral suspension
125 mg per 5 ml:
100 ml and 200 ml bottles
250 mg per 5 ml:
100 ml and 200 ml bottles

Indications

Cyclapen® (cyclacillin) has less in vitro activity than other drugs in the ampicillin class of antibiotics and its use should be confined to the indications listed below

Cyclapen® is indicated for the treatment of the following infections

RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis Media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis* (This drug should not be used in any infections caused by *E. coli* and *P. mirabilis* other than urinary tract infections.)

NOTE: Cultures and susceptibility tests should be performed initially and during treatment to monitor the effectiveness of therapy and the susceptibility of bacteria. Therapy may be instituted prior to the results of sensitivity testing.

Contraindications

The use of this drug is contraindicated in individuals with a history of an allergic reaction to penicillins.

Warnings

CYCLACILLIN SHOULD ONLY BE PRESCRIBED FOR THE INDICATIONS LISTED IN THIS INSERT.

CYCLACILLIN HAS LESS *IN VITRO* ACTIVITY THAN OTHER DRUGS OF THE AMPICILLIN CLASS ANTIBIOTICS. HOWEVER, CLINICAL TRIALS HAVE DEMONSTRATED THAT IT IS EFFICACIOUS FOR THE RECOMMENDED INDICATIONS.

SERIOUS AND OCCASIONAL FATAL HYPERSENSITIVITY (ANAPHYLACTOID) REACTIONS HAVE BEEN REPORTED IN PATIENTS RECEIVING PENICILLIN.

ALTHOUGH ANAPHYLAXIS IS MORE FREQUENT FOLLOWING PARENTERAL ADMINISTRATION, IT HAS OCCURRED IN PATIENTS ON ORAL PENICILLINS. THESE REACTIONS ARE MORE APT TO OCCUR IN INDIVIDUALS WITH A HISTORY OF SENSITIVITY TO MULTIPLE ALLERGENS. THERE ARE REPORTS OF PATIENTS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY REACTIONS WHO EXPERIENCED SEVERE HYPERSENSITIVITY REACTIONS WHEN TREATED WITH A CEPHALOSPORIN. BEFORE THERAPY WITH A PENICILLIN, CAREFUL INQUIRY SHOULD BE MADE ABOUT PREVIOUS HYPERSENSITIVITY REACTIONS TO PENICILLINS, CEPHALOSPORINS, AND OTHER ALLERGENS. IF AN ALLERGIC REACTION OCCURS, THE DRUG SHOULD BE DISCONTINUED AND APPROPRIATE THERAPY SHOULD BE INITIATED. SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE, OXYGEN, INTRAVENOUS STEROIDS, AIRWAY MANAGEMENT, INCLUDING INTUBATION, SHOULD ALSO BE ADMINISTERED AS INDICATED.

Precautions

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

PREGNANCY: Pregnancy Category B. Reproduction studies have been performed in mice and rats at doses up to ten times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when cyclacillin is administered to a nursing woman.

Adverse Reactions

The oral administration of cyclacillin is generally well tolerated.

As with other penicillins, untoward reactions of the sensitivity phenomena are likely to occur, particularly in individuals who have previously demonstrated hypersensitivity to penicillins or in those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported with the use of cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.)

Other less frequent adverse reactions which may occur and that have been reported during therapy with other penicillins are: anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

Dosage and Administration

INFECTION*	ADULTS	CHILDREN
		Dosage should not result in a dose higher than that for adults
Respiratory Tract		
Tonsillitis & Pharyngitis**	250 mg q.i.d. in equally spaced doses	body weight <20 kg (44 lbs) 125 mg q.i.d. in equally spaced doses body weight >20 kg (44 lbs) 250 mg q.i.d. in equally spaced doses
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d. in equally spaced doses	50 mg/kg/day q.i.d. in equally spaced doses*
Chronic Infections	500 mg q.i.d. in equally spaced doses	100 mg/kg/day q.i.d. in equally spaced doses
Otitis Media	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 mg/kg/day equally spaced doses depending on severity
Skin & Skin Structures	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 mg/kg/day equally spaced doses depending on severity
Urinary Tract	500 mg q.i.d. in equally spaced doses	100 mg/kg/day in equally spaced doses

*As with antibiotic therapy generally, treatment should be continued for a minimum of 48 to 72 hours after the patient becomes asymptomatic or until evidence of bacterial eradication has been obtained.

**In infections caused by Group A beta-hemolytic streptococci, a minimum of 10 days of treatment is recommended to guard against the risk of rheumatic fever or glomerulonephritis.

In the treatment of chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and may be required for several months afterwards.

Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure

Based on a dosage of 500 mg q.i.d., the following adjustment in dosage interval is recommended:

Patients with a creatinine clearance of >50 ml/min need no dosage interval adjustment.

Patients with a creatinine clearance of 30-50 ml/min should receive full doses every 12 hours.

Patients with a creatinine clearance of between 15-30 ml/min should receive full doses every 18 hours.

Patients with a creatinine clearance of between 10-15 ml/min should receive full doses every 24 hours.

In patients with a creatinine clearance of <10 ml/min or serum creatinine values of >10 mg%, serum cyclacillin levels are recommended to determine both subsequent dosage and frequency.

Wyeth Laboratories
Philadelphia, Pa 19101

Genital Abnormalities in a Group of 500 Hysterosalpingograms

Hamid H. Sheikh, M.D., F.A.C.O.G., Lexington

Five hundred hysterosalpingograms (HSG) were performed over a period of two and a half years. Indications for the procedure were infertility work-up, follow-up of sterilization techniques and localization of intrauterine devices. The incidence of double uterus was 0.2%. Bicornuate uterus was present in 0.6%, subseptate uterus in 0.6%, and abnormal findings such as endometrial polyps were encountered in 0.6% of the patients. Asherman's syndrome was found in 0.2% of patients, and fibroid uteri were present in 0.6%. HSG's were carried out using a Foley catheter. No relationship was found between abnormal findings and parity.

Embryologically, a bicornuate conformation is transiently present in the uterus in the early stages of development. Incomplete or failed fusion of the müllerian duct results in a bicornuate uterus or double uterus, while absence of one müllerian duct results in a uterus unicornis.[5]

Around the fifth or sixth week of fetal life, the formation of the genital tract commences.[6]

Robishuk and Moshe reported a familial tendency to genital defects.[7]

Caparo and Cohen[8] performed cytogenetic studies in females with various genetic defects and did not find any abnormal Karyotype in any of them.

Reid,[9] documented a 1-3% incidence of premature labor related to uterine and cervical abnormalities.

Seventy percent of urological abnormalities are associated with genital abnormalities. Uterus bicornus bicollis with partial vaginal septum is characteristically associated with absent kidney.[5]

The incidence of uterine malformation was reported by Strassman[1] as 1/100, by Wilson and Harris[2] as 1 - 2/1000, and by Zarbrinskie 1/32.

Hay[3] performed intrauterine examination on all patients at delivery and found a very high incidence of 12%.

Loring[3] reported the incidence of double uterus to be 1/1000 - 1/2000.

Jones and Jones[4] reported that about 25% of patients with double uterus have serious reproductive problems.

Material and Methods

Five hundred HSG were carried out at the University of Louisville General Hospital over a period of two and a half years (from September 1972 to March 1975) for various indications, mostly followup of sterilization,[10,11] infertility work-up, and localizations. A Foley catheter technique[12] was used for the HSG procedure. All the HSG's were carried out by same operator.



FIG. 1: Double Uterus

From the Department of Obstetrics and Gynecology, Louisville General Hospital, University of Louisville, Louisville, Ky.

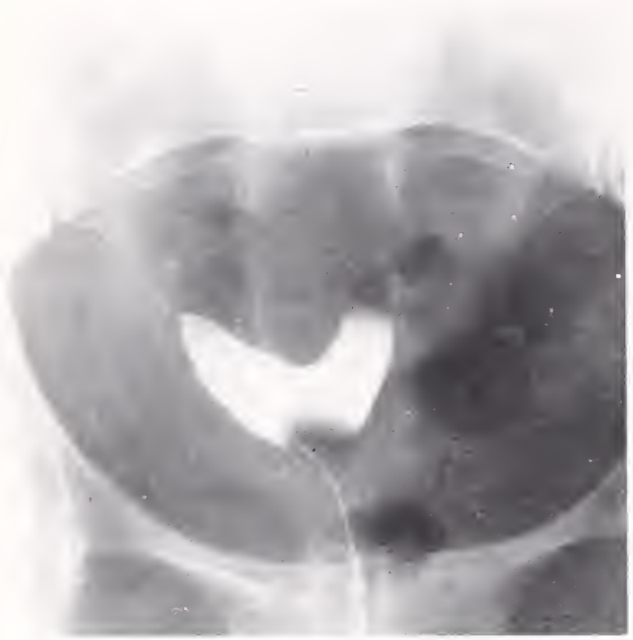


FIG. 2: Bicornuate Uterus



FIG. 3: Big Uterine Cavity



FIG. 4: Long Dilated Cervix



FIG. 5: Fibroid Uterus

The HSG procedure involved placing of a Graves speculum in vagina, cleaning of the vagina and cervix with betadine solution, and the insertion of a Foley catheter into the uterus. Water-soluble, radio-opaque material (Sinografin® or Salpix®) was injected through the catheter. Pictures were taken under direct fluoroscopic control. The number of pictures taken varied with the requirements of each individual case studied. Separate Foley catheters were inserted in each uterus in a patient with double uterus (Fig. I).

Results

Of 500 patients studied by HSG, 31 had various abnormalities ranging from minor variations to major abnormalities.

The majority of the HSG's were performed as a follow-up of sterilization procedures, so no relationship was found between parity and uterine abnormalities. In one patient, HSG was done for repeat miscarriages and bicornuate uterus was found. Circlage of the cervix helped her to conceive successfully (Fig. II).

In one case of postpartum amenorrhea Asherman's syndrome was documented by HSG.

One patient with a double uterus had four normal pregnancies and deliveries. At the time of sterilization both uteri appeared normal in size, indicating the possibility that each uterus might have harbored two pregnancies.



FIG. 6: Irregular Uterine Cavity

TABLE I

ABNORMALITIES	NUMBER	INCIDENCE	
Double Uterus	1	0.2%	Fig. I
Bicornuate	3	0.6%	Fig. II
Big Uterus	4	0.8%	Fig. III
Small Uterus	3	0.6%	
Long Cervix (Dilated)	5	1%	Fig. IV
Subseptate Uterus	3	0.6%	
Endometrial Polypy	3	0.6%	
Asherman Syndrome	1	0.2%	
Ovarian Cyst	2	0.4%	
Fibroid Uterus	3	0.6%	Fig. V
Irregular Uterine Cavity	3	0.6%	Fig. VI

Table I summarizes the incidence of genital abnormalities and various other findings.

Comment

No relationship was found between uterine abnormalities and the parity. The patient who showed a bicornuate uterus on HSG and had multiple miscarriages, but conceived a term pregnancy after a circlage operation. This gives rise to the speculation that the circlage may have helped to strengthen the internal os in relation to the expanding lower uterine segment. No associated urologic abnormalities were found in any of the described genital abnormalities.

Acknowledgement

The author is thankful to Dr. Douglas Haynes Professor of OB-GYN, University of Louisville for critically reviewing the manuscript.

References 1. Strassman EO: Operations for double uterus and endoatresia. *Clin Obstet Gynecol* 4:240, 1961. 2. Wilson & Harris GH: Congenital abnormalities of the uterus and associated malformations. *J Obstet Gynecol, Br Commonwealth* 68:841, 1961. 3. Loring TW: Pregnancy and uterine malformations: A report of two unusual cases. *Am J Obstet Gynecol* 116:505, 1973. 4. Jones HS & Jones GW: Double uterus as an etiological factor in repeated abortions. Indications for surgical repair. *Am J Obstet Gynecol* 65:325, 1953. 5. Weirsma AF, Peterson LF, & Justema EJ: Uterine abnormalities associated with unilateral renal agenesies. *Am J Obstet Gynecol* 47:654, 1976. 6. Green TH: *Gynecology* Boston, 1965, Little Brown & Co. P. 52. 7. Polishuk WZ, Moshe R: "Familial bicornuate and double uterus." *Am J Obstet Gynecol* 119 (8-1-74). 8. Capraro VJ & Cohen MM *Obstet & Gynecol.* 33:647, 1969. 9. Reid SM: Unexplained prematurity investigation of Possible causes. *J Obstet Glynecol Br Commonwealth* 68:796, 1961. 10. Sheikh HH: Hysterosalpingogram follow-up of laparoscopic sterilization. *Am J Obstet Gynecol* 126:2, 1976. 11. Sheikh HH: Hysterosalpingogram follow-up of the partial salpingectomy type of sterilization. *Am J Obstet Gynecol* 128:858, 1977. 12. Parekh MD & Arronet GH: Diagnostic procedure and methods in the assessment of female pelvic organs with special reference to inferility. *Clin Obstet Gynecol* 15:1, 1972.

ORTHOPEDIC SURGEON

Needed to associate in private practice with Agustin Sierra, M.D. FACS, in Henderson, KY.

Practice established for twelve years.

Good hospital and Emergency Room facilities.

Office adjacent to the hospital.

Financial arrangements open to discussion.

ADDRESS: 1413 North Elm Street, Henderson, KY 42420

PHONE: 502-826-8664

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

For a preliminary rate quotation, detach the enclosed card and return to us.

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

The Widening Definition Of Familial Polyposis

Familial polyposis (FP) was recognized as a genetic disorder consisting of multiple colonic polyps predisposing to early deadly carcinomas as early as 1882. It was not until 1930, however, that Dukes comprehensively described and defined this disease as an autosomal dominant trait, consisting of multiple adenomatous polyps of the colon and rectum, predisposing to early adenocarcinoma of the colon and rectum, and early death.[1] Until the mid-sixties FP was held to be a separate disease from the other described diseases of gastrointestinal polyposes associated with extracolonic lesions. This distinction was made especially in England. In 1950, Gardner[2] described an entity consisting of the same type of colon lesions, but also consisting of osteomas, epidermal and subcutaneous lesions, and finally, in 1962 he included abnormal dentition.[3] Over the past few years many investigators have reported multiple adenomatous polyps of the colon and rectum associated with a number of other abnormalities. These abnormalities include polyps of the stomach,[4-5] lesions of the ampulla of Vater,[6] papillary carcinomas of the thyroid, and CNS lesions.[7]

Recently physicians have used the term "familial polyposis" to refer both to Gardner's syndrome and FP associated with other lesions. What were once thought to be separate diseases are now being grouped into a single disease entity primarily characterized by multiple colonic adenomatous polyps.

Case Report

A 43-year-old man presented to the emergency room of Norton-Children's Hospital with a complaint of 24 hours of unrelieved abdominal distention and obstipation. He was known to have polyposis coli, and 20 years earlier had undergone a total colectomy and ileoproctostomy. With the exception of one laparotomy for lysis of adhesions, he had since led a productive life as a milk-truck driver and was well adjusted to a routine of 10 bowel movements daily. Follow-up had consisted of sigmoidoscopy every six months, with polyps being found and fulgurated on an average of every other visit. The last examination had been six months earlier, and no polyps had been seen.

One week prior to admission he began to have episodes of intermittent abdominal distention and periumbilical pain. There was no history of recent weight loss, melena or hematochezia. Family history was positive for polyposis coli, early loss of teeth, and adenocarcinoma of the colon.

Physical examination showed the patient to be in moderate distress: temperature was 97.6 F, pulse and blood pressure were unremarkable. There was no scleral icterus and no palpable nodules in the thyroid. The cardiorespiratory examination was unremarkable. The abdomen was grossly distended and tympanitic in all quadrants. There were no masses, guarding or rigidity. Bowel sounds were decreased. Previous incisions were well healed; no hernias were present. A rectal exam was refused.

Electrolytes, hemoglobin and urine analysis were unremarkable. Abdominal x-ray revealed scattered gas pattern in a moderately distended small bowel. Abdominal distention increased during a course of gastric decompression. An exploratory laparotomy was performed and carcinomatosis of the peritoneal cavity was found involving retroperitoneum, liver, wall and mesentery of the small bowel and the peritoneum. A decompression ileostomy was fashioned and the abdomen was closed after multiple biopsies were taken.

Pathology reported adenocarcinoma. The patient expired three weeks later.

Discussion

Since FP requires not just colonic polyps but those which tend toward early malignancies,[9] thorough investigation and classification of polyps has been necessary. It is now believed that there are four kinds of commonly seen gastrointestinal lesions. Only the

From the Department of Surgery, University of Louisville School of Medicine, and the University Surgical Service, Norton Division of Norton-Children's Hospital, Louisville, Kentucky.

Table 1. Histologic Classification of Benign Intestinal Polyps

	Single	Multiple (Polyposis)
Neoplastic	Adenoma Papillary edema Villous papilloma	Polyposis coli
Hamartomas	Juvenile polyp Peutz-Jeghers polyp	Juvenile polyposis Peutz-Jeghers syndrome In the dysenteries, ulcerative colitis, Crohn's disease, diverticulitis, etc.
Inflammatory	Benign lymphoid polyp	Benign lymphoid polyposis
Unclassified	Metaplastic (hyperplastic) polyp	Multiple metaplastic polyposis

Reproduced with permission from Morson, B.C. and Bussey, H.J.R.: Predisposing Causes of Intestinal Cancer, in Ravitch, M.M., et al. (eds): CURRENT PROBLEMS IN SURGERY. Copyright© 1970 by Year Book Medical Publishers, Inc., Chicago.

neoplastic polyps have been implicated per se as premalignant lesions. Therefore, FP can not be diagnosed without biopsy evidence of neoplastic-type polyps, which generally tend to be adenomatous, although other types (e.g. papillary adenoma, villous adenoma) are seen with the disease as well (Table 1). Note that polyps associated with Peutz-Jeghers syndrome[9] can not be included in the FP category.

Genetics and Transmission

Familial polyposis is transmitted as an autosomal dominant trait. It is well established[9-10] that one out of five or six people manifesting the disease will be mutations. Careful documentation of family history points out that families affected only produce about 80% of the average number of children, and mutation would be necessary to keep the disease from slowly disappearing. The gene is thought to have a high (80-90%) but variable penetrance, and this hypothesis has emerged as a possible explanation for the varying phenotypes of the disease. As more data have become available, it has become more apparent that almost all people with FP have other associated lesions, as described by Gardner and others,[8-9,11] but many remain occult unless patients at risk are aggressively screened.

Clinical Manifestations

Clinically FP frequently presents with abdominal cramping, diarrhea, and the passage of blood. If the patient makes his first presentation with symptoms, he is on the average 36-years-old. Two-thirds of these patients will have at least one carcinoma at presentation. On the other hand, if the patient is being followed for a family history of the disease, the average age at diagnosis is 25 years and fewer than 15% will have a malignancy.[9] The earliest recorded documentation of FP was at four months;[12] the latest at 74 years.[13] The time span from onset of polyps to the onset of malignant degeneration has been estimated at five to 20 years (average 10 years). Symptoms are always caused by polyps. Average age at death is 42,[11] some 20 to 25 years earlier than that of the general population with colon or rectal cancer.

Diagnosis

Diagnosis of FP can be made easily with the sigmoidoscope. Since the rectum is always involved, barium enema is thought to be superfluous.[11] Biopsies are necessary to determine that the lesions are adenomatous so that patients with multiple benign lesions will not be incorrectly diagnosed as having FP. Because of the much lower incidence of malignancy when the disease is actively sought out, the physician's responsibility includes charting a pedigree and advising the immediate family members of the patient to seek medical investigation of their potential condition. Consensus is that a family member possibly affected should receive yearly sigmoidoscopic examinations starting in the early teens and continuing until the patient is 50 or 55.

Once a person is discovered to have polyposis coli, the treatment of choice is total proctocolectomy and ileostomy or, in selected cases, total colectomy and ileoproctostomy. With the latter procedure the following criteria for the retained segment must be met: 1) no residual cancer; 2) few enough polyps left to be

managed easily with fulguration without causing stricture; 3) short enough to allow easy accessibility to sigmoidoscope; and 4) the patient must be reliable enough not to miss scheduled follow-up visits and must be able to recognize early signs of trouble. Eventual death from carcinoma in this segment has been estimated at from 4 to 20%. In any case, greater risk is involved when leaving in the rectal stump when compared to proctocolectomy.

Associated Lesions

Desmoid tumors of the abdominal wall, muscle and retroperitoneum are often seen in the suture line of the colectomy incision.[14] Although the lesion does not metastasize, it infiltrates to such an extent that it can be inoperable and fatal through damage to adjacent structures. Another superficial lesion seen with the disease is the epidermoid cyst.[15]

Osteomas of all bones, but especially of the mandible and maxilla, were originally described by Gardner as part of his syndrome.[2] A recent study using panoramic views of the mandible found more than 90% of patients with polyps also had clinically occult osteomas.[16] Patients with osteomas but no polyps have not been followed long enough to rule out the development of polyps later. Since this disease may have poor early penetrance, panoramic mandibular radiographs may prove helpful in determining genotype in the future.

Dental lesions were the final addition by Gardner to his syndrome and included multiple caries, supernumerary and impacted teeth.[3] Many people were noted to have dentures at an early age.

Polyposis of the gastrointestinal tract in locations other than the colon has recently been well documented.[5-6,8,10] Adenomatous polyps of the stomach and duodenum are the most common, but benign polyps, as well as Puetz-Jeghers stigmata have been described.

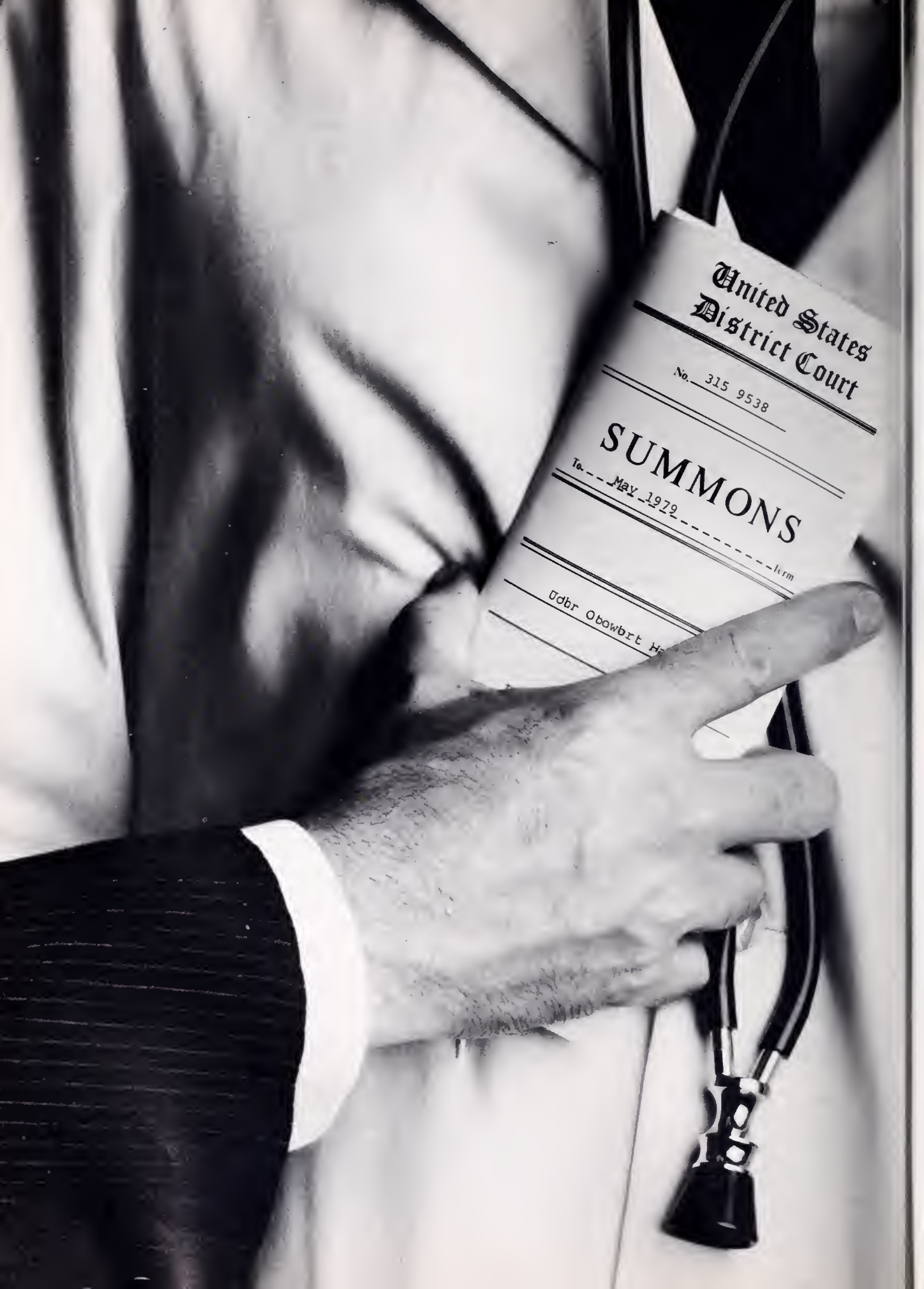
Carcinomas of multiple other sites have also been described; those of the ampulla of Vater,[7,17] the pancreas,[12] stomach,[8] and thyroid[4] are rare but do exist. Other rarely found conditions are FP with CNS lesions (Turcot's syndrome),[18] retroperitoneal fibrosis and leiomyomas,[19] and fibromas of the mesentery.

Although cancer of the colon is still the primary concern with FP, as this aspect of the disease is controlled, the many associated lesions described above will become more important. Unfortunately, they can be expected to cause significant morbidity and mortality in their own right. On the other hand, they may also provide early clues to a patient's genotype and indicate the careful follow up that could prevent a deadly colonic malignancy.

References 1. Dukes CE: The hereditary factor in polyposis intestini or multiple adenomata. *Cancer Rev, Brist.* 5:241, 1930. 2. Gardner EJ and Stephens FE: Cancer of the lower digestive tract in one family group. *Am J Hum Genet* 2:41-48, 1950. 3. Gardner EJ: Follow up study of a family group exhibiting dominant inheritance for a syndrome including intestinal polyps, osteomas, fibromas and epidermal cysts. *Am J Hum Genet* 14:376-390, 1962. 4. Utsunomyia J, Makai T, Iwama T, et al: Gastric lesion of familial polyposis coli. *Cancer* 34:745-754, 1974. 5. Yonemoto RH, Slayback JB, Byron RL Jr, et al: Familial polyposis of the entire gastrointestinal tract. *Arch Surg* 99:427-434, 1969. 6. Jones JR and Nance FC: Peri-ampullary malignancy in Gardner's syndrome. *Ann Surg* 185:565-573, 1977. 7. Hoffmann DC and Goligher JC: Polyposis of stomach and small intestine in association with familial polyposis coli. *Br J Surg* 58:126-128, 1971. 8. Smith WG and Kern BB: The nature of the mutation in familial multiple polyposis: papillary carcinoma of the thyroid, brain tumors, and familial multiple polyposis. *Dis Colon Rectum* 16:264-271, 1973. 9. Morrison BC and Bussey HJR: Predisposing causes of intestinal cancer. *Curr Probl Surg* Feb: 1-46, 1970. 10. Bussey HJR: Gastrointestinal polyposis. *GUT* 11:970-978, 1970. 11. Watne AL, Core SR and Carrier JM: Gardner's syndrome. *Surg Gynecol Obstet* 141:53-56, 1975. 12. LeFevre HW and Jacques FT: Multiple polyposis in an infant of four months. *Am J Surg* 81:90-91, 1951. 13. Stauffer JQ: Heritible multiple polyposis syndrome of the gastrointestinal tract. In *Gastrointestinal Disease* (Sleisenger MH and Fordtran JS, eds.). Philadelphia: W.B. Saunders, 1973, pp 1051-1060. 14. McAdam WAF and Goligher JC: The occurrence of desmoids in patients with familial polyposis coli. *Br J Surg* 57:618-630, 1970. 15. Leppard B and Bussey HJR: Epidermoid cysts, polyposis coli and Gardner's syndrome. *Br J Surg* 62:387-393, 1975. 16. Utsunomiya J and Nakamurua T: The occult osteomatous changes in the mandible in patients with familial polyposis coli. *Br J Surg* 62:45-51, 1975. 17. MacDonald JM, Davis CW, Crago HR, et al: Gardner's syndrome and periampullary malignancy. *Am J Surg* 113:425-429, 1967. 18. Schucharde WA Jr and Ponsky JL: Familial polyposis and Gardner's syndrome. *Surg Gynecol Obstet* 148:97-103, 1979. 19. Smith WG: Multiple polyposis, Gardner's syndrome and desmoid tumors. *Dis Colon Rectum* 1:323-332, 1958.

THOMAS LINDENFELD, M.D.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790.


United States
District Court
No. 315 9538
SUMMONS
May 1979
Udbr Obowbrt

AFTER ALL THOSE YEARS OF HARD WORK, SOMEONE FINALLY HANDS IT TO YOU.

You're extremely vulnerable.

Because, along with achieving a good reputation, a nice-sized practice, and a large estate, you've become a prime target for malpractice claims.

And though you may get one that's of a frivolous nature, improperly handled it can cause enough pressure to affect you at work.

Which is why you may want to contact Insurance Corporation of America.

There are some specific reasons why we're better at helping you than other malpractice insurance companies.

AN ICA ATTORNEY. FROM THE START.

Legal action against a policyholder of ours is met head-on.

With legal action from us.

So, unlike other insurance companies, ICA doesn't give you a general adjuster who also handles auto liability claims.

Instead, even your initial phone conversation with ICA about a claim is with one of our licensed attorneys, seasoned in handling professional liability claims.

AFTER YOU CALL US, WE WON'T LEAVE YOU HANGING.

To help relieve the worries and frustrations a claim can bring you, we quickly become personally involved.

Soon after your call, we're discussing the claim face-to-face with you.

We also personally check every hospital record in a case, and act promptly on even a suspicion of a claim.

In so doing we're able to end many malpractice threats before they become formal suits.

And if a claim is formally lodged against you, your ICA attorney will bring together a task force drawn from the best, most experienced legal firms in the field of malpractice law.

He will coordinate the attorneys' efforts with those outstanding physicians who serve as ICA consultants.

And he'll be totally committed to fight until you get a favorable judgment or until all remedies by appeal or other proceedings are exhausted.

What's more, at ICA we never recommend that you settle just because it could be less costly than fighting.

WE TREAT $15,000-DOLLAR CLAIMS LIKE CLAIMS 100 TIMES BIGGER.

A small claim can do as much damage to a doctor's reputation as a big one.

And we're very sensitive to that fact. Because in addition to being operated by attorneys, our medical liability division is founded by an attorney who is also a physician.

So when it comes to protecting physicians, we're not only highly professional.

We're highly motivated.

And we hope that motivates you to fill in and mail the attached postage-paid form today.

ICA INSURANCE CORPORATION OF AMERICA

ICA Building, 2205 Montrose Blvd., Houston, Texas 77006, 713/526-4863

A:XV Reinsurance Protection Provided.

Happy New Decade

May the 80's be the best of all!

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

Insurance Update

KMIC'S 15% Rate Reduction

Ballard Cassady, M.D., Chairman of the Board of KMIC and Riley Lassiter, Executive Vice President of the Company, answered questions regarding the KMIC rate reduction and how this effects Kentucky physicians.

Q. Why does the KMIC Board feel a 15% rate reduction is appropriate at this time?

A. (Dr. Cassady) As you know, KMIC has been fully operational since June 1, 1979, and, through November 30, insured 366 physicians in Kentucky. During the period the company was reaching its capitalization goal, however, the KMA Insurance Agency placed coverage through PICO, Physicians Insurance Company of Ohio. Through their physician-owned company, our neighboring Ohio doctors have lent their expertise and guidance to the formation of our Kentucky company.

Having just completed its third year of business, PICO evaluated its rating structure, and after doing so, announced an Ohio rate reduction October 1. Our experience in Kentucky has been similar to, if not better than, Ohio experience, so the KMIC Board felt that a rate reduction at this time was very appropriate.

(Mr. Lassiter) The rate reduction announced recently by PICO was prompted by advise from their actuaries based on information provided by Insurance Services Office (ISO), which collects and analyzes loss experience by all companies operating in each area, including Kentucky. Data obtained from ISO has been used to justify rate reductions in recent months by other companies marketing medical professional liability insurance in this state and regionally.

One of the major concepts behind KMIC is to provide Kentucky physicians with the best coverage available at rates based on **Kentucky claims experience.** When we became operational on 6/1/79, it was apparent that PICO's Kentucky rates were excessive and we reduced those rates 5% at that time. Subsequently, we continued to monitor all possible actuarial and claims data; and when the ISO studies became available, they confirmed our feeling that an additional 15% reduction was indicated.

Rates must be adequate to cover claims against our policyholders and to ensure long-term stability of our company; and since all available data supports the rate reduction, the Board and management feel this action is in the best interest of Kentucky physicians and the company. We are very pleased that KMIC can offer lower rates now.

Q. The rate reduction is on KMIC's primary coverage. What about PICO's excess policy that is marketed through the KMA Insurance Agency?

A. (Mr. Lassiter) PICO alone determines the rates they charge for their excess policy. We are hopeful that the data base they are accumulating on this coverage will result in a rate reduction in the not-too-distant future. I should point out that the KMA Insurance Agency writes considerbly less volume in PICO's excess business than does KMIC with our own primary coverage, so additional experience must be established.

Q. What effect do you expect this reduction to have on the market in Kentucky?

A. (Dr. Cassady) The market today is much more competitive than it was just three years ago, although there still are relatively few sources of medical malpractice insurance. We welcome this competition, since it is in the best interests of all purchasers of insurance. We also believe that all Kentucky physicians should enjoy the lowest possible rates, whether or not they are insured by our company. Therefore, we hope that our action will trigger further reduction by other insurers.

Q. Do you expect further rate reductions?

A. (Mr. Lassiter) Since all insurance premiums must be based principally on claims experience, we have to wait and see what the future brings. We can control operating costs, as our low expense ratio indicates. We also can exert influence on claims costs, and we expect to continue increasing our efforts in this regard. For example, our refusal to pay so-called nuisance claims and our determination to defend our policyholders against frivolous or unreasonable claims should help considerably to keep claims costs low.

(Dr. Cassady) Lower premiums naturally appeal to all consumers, but there are other ways to serve Kentucky physicians. For example, KMIC offers primary coverage for partnerships and professional service corporations at no charge, if all members have their individual coverage with the company. This additional savings is particularly significant in light of the 15% rate reduction. For physicians in these types of practice, KMIC rates are now among the lowest in Kentucky for most medical specialties.

(Mr. Lassiter) KMIC's risk classifications differ somewhat from those utilized by many of the commercial carriers, and this results in more than competitive rates for certain medical specialists. For example, KMIC places diagnostic radiology in Class I, whereas a major commercial carrier places in Class II. KMIC covers family or general practice doing normal obstetrics and obstetrical anesthesia in Class II as compared to Class V by a major carrier.

Q. What can physicians look forward to in KMIC's future?

A. (Mr. Lassiter) KMIC's future, as well as the futures of those it serves, will continue to be favorably affected by the many values inherent in the concept of a physician-owned insurance company. Specifically, our remarkable early growth (serving 10+% of Kentucky's actively practicing physicians after six months in operation) foreshadows a constantly increasing response from physicians in this state. This response is increasing daily, to the extent that KMIC will soon become the major carrier here. Physicians in this state may anticipate a sound, ongoing program of insurance that will be available to meet their needs when the market again becomes tight.

PERSONAL SERVICE

is the Reason so Many Doctors Lease from Us!

All Are Leasing Specialists:

Bill Foster — ACCT. EXEC.
Ben Gabbard — ACCT. EXEC.
Lee Balz — ACCT. EXEC.
Ed Harvey — ACCT. EXEC.
Ted DeFosset — GEN. MGR.
Jim Powell — ACCT. EXEC.

General LEASING CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

Leasing Cars—All makes & models,
Medical, Surgical & Laboratory Equipment
and Office Furnishings.



Tagamet®

brand of

cimetidine

How Supplied:

Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

A well-tolerated, nonarcotic prescription for pain



© 1979 The Upjohn Company

Motrin® now proved an effective analgesic for mild to moderate pain

Motrin 400 mg provided greater relief of pain than did propoxyphene 65 mg in controlled clinical pain studies.

Time after drug administration (hour)		.5	1	2	3	4
Mean relief-of-pain scores* (No. patients reporting)	Motrin 400 mg ibuprofen	.89 (108)	1.25 (108)	1.36 (108)	1.28 (107)	1.19 (106)
	Darvon 65 mg propoxyphene	.66 (100)	.99 (99)	1.13 (96)	.99 (96)	.80 (96)
Statistical significance		$p<0.02$	$p<0.01$	$p<0.05$	$p<0.02$	$p<0.002$

*0 = No relief 1 = Partial relief 2 = Complete relief

Data on file at The Upjohn Company

Motrin demonstrated statistically significant greater relief of pain than did Darvon at all time intervals.

Motrin 400 mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming
- Rapid analgesic action • Indicated in acute and chronic pain
- Well tolerated. The most common side effect with Motrin is mild gastrointestinal disturbance.

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin* used concomitantly may decrease Motrin blood levels. *Coumarin*: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

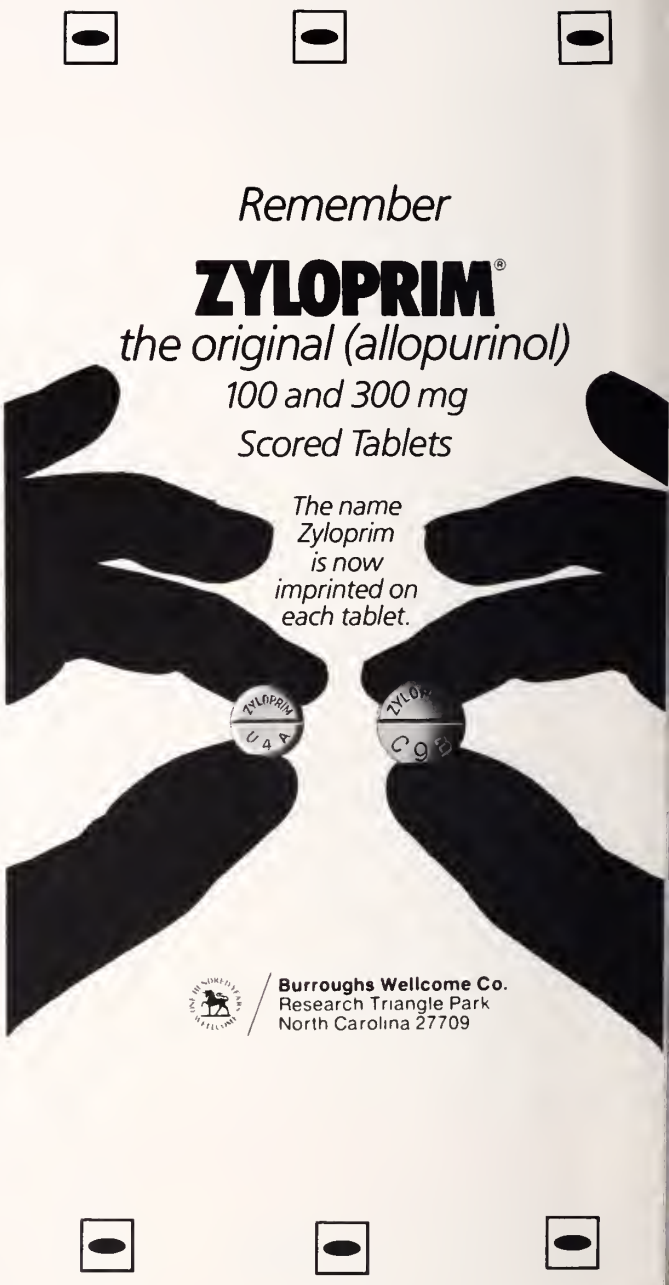
Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

MED B-4-S

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA



BOOK REVIEWS

What You Should Know About Medical Lab Tests

Bernard Kliman, M.D. and Raymond Vermette, M.S., 207 pages, $8.95, J.B. Lippincott Company, Copyright 1979

This foreboding title reflects the interesting dilemma that the physician and the patient face in today's medical milieu. Practically no news broadcast and certainly very few newspapers and magazines will not sport a medical report of varying complexity, seasoned with medical jargon and particularly test results. These articles whet the appetite of the reader for more information.

This book attempts to encompass the spectrum of medical testing without immersing the reader in a quagmire of unnecessary detail. This gargantuan task is accomplished admirably. Several sections are devoted to cataloging and explaining the usual "blood tests" that are performed in hospital admissions and physical examinations. Information is presented almost in an encyclopedic fashion, but nevertheless, the reader can filter out what either is of little interest or not germane.

Several, eye-catching chapters tackle the mystery of cardiac diagnosis. Such potentially frightening, if not even condemning terms, such as "high cholesterol and abnormal electrocardiogram" are clarified in basic understandable terminology. To the professional reader, the language and depth of explanation may be puerile, but this book was intended to be a primer for the layman.

Chapters on pregnancy, fertility and sex hormone evaluations are welcomed. This evolving field is hard to cover without being dated by publication, but the information presented is adequate for today's questioning patient.

The vitamin morass is not really clarified, but perhaps this reflects the state of the art in this area. This section is probably the weakest, comparing the detail available to readers in almost every current magazine.

The jacket cover advertises environmental pollutants and cancer testing but these are mingled with the other categories and cannot be segregated easily.

In summary this book is worthwhile recommending for the questioning and adequately literate patient. The physician still bears the brunt of explaining to most patients the meaning and place for medical testing.

STEPHEN Z. SMITH, M.D.

Electron Microscopy of the Kidney in Renal Disease and Hypertension A Clinicopathological Approach

Anil K. Mandal with collaboration of James E. Wenzl, Plenum Medical Book Company, 452 pages, $32.50, Copyright 1979

Recently several books have been published regarding the modern approach to renal diseases utilizing light microscopy, immunofluorescence and electron microscopy of renal biopsies.

This latest book, designed for medical students and residents, emphasizes the electron microscopy at the expense of immunofluorescence, which is only briefly referred to. Many of the chapters are excellent. Among these are chapters 5, 6, 7 and 11 on the normal renal structures, glomerulonephritis, nephrotic syndrome and focal glomerulonephritis.

Chapters 12 and 13 on the accomplishments of electron microscopy study in the practice of nephrology and principles of management pertaining to renal pathology, is well worth reading.

The book is printed on glitted paper but the illustrations are unfortunately of poor quality. Frequently, the original must have been without sufficient contrast and some of the illustrations are also marred by artifact such as chatter.

Mandal's book does not compare well to Jenis and Lowenthal's book: Kidney Biopsy Interpretation, which is in the same price range.

PER HENRIK BECHER CARSTENS, M.D.

SPECIAL ARTICLE

When The Bad Apples Get Barreled

One of the most perplexing and controversial problems facing the State Board of Medical Licensure has been the handling of disciplinary procedures against physicians and osteopaths who have been indicted and/or convicted of a criminal act. Many of the Board members have been asked how it can be that certain members of the Kentucky medical community are now serving time in prison and yet still have their licenses to practice medicine and, in some instances, have had no disciplinary action taken against them.

In examining this problem, one should first divide these types of cases into two categories, those occurring **before** June 17, 1978, and those occurring **after** June 17, 1978. The reason for this demarcation is that the law concerning disciplinary actions was changed upon that date. **First,** before June 17, 1978, KRS 311.595 provided that the Board could discipline a doctor only in relationship to a conviction for a felony involving "moral turpitude". **Second,** before June 17, 1978, in order to stop a physician from practicing when it appeared to the Board from the evidence at hand that the practice of that doctor constituted a present danger to patients of that physician or the members of the general public, the Board was required to obtain an injunction in the Circuit Court in the county in which the physician was in practice. (From 1974 to 1978, the Board attempted this procedure twice and both times was unsuccessful, even though one of the physicians is now in the federal penitentiary, and the other, after a long legal battle, has finally retired with complaints pending.) **Third,** before June 17, 1978, the Board faced an awkward situation; if the felony conviction (or indictment) did not constitute a "felony involving moral turpitude", then the Board was left with the charge that the crime constituted conduct which was "dishonorable, unethical, or unprofessional." Unfortunately, the Court had ruled that the language of "dishonest, unethical or unprofessional conduct" was too nebulous to apprise the physician of what conduct therein was condemned and overturned a disciplinary action based on those grounds.

Fourth, before June 17, 1978, the Board had no direct access to information regarding criminal convictions against physicians and usually learned of the problem in the newspaper after the trial and sometimes after the physician involved was already serving his sentence.

With the above described factors in mind, consider the following which is typical of dilemmas the Board faced prior to June 17, 1978:

1. The Board receives information that a physician has been indicted for trafficking in controlled substances; the information appears reliable and indicates that the physician is indeed an outlet for illicit drugs. The Board feels that the physician's practice should be stopped until a hearing can be held.

2. To obtain a Temporary Injunction, the Board must first file a Complaint. Previous experience shows that KRS 311.595(1)(h) dishonest, unethical, unprofessional conduct) may not hold up; KRS 311.595 (1)(d) speaks of a **conviction** of felony, this physician has only just been indicted; KRS 311.595(1)(k) allows disciplinary action against a physician who violates any provision of the Medical Practice Acts (controlled substance violation). This appears to be the best route. However, the Board must rely on the witnesses to be used in the criminal action in order to prove its case.

3. A Complaint is filed; efforts to have the hearing on the Complaint and/or on the injunction to practice is met with considerable opposition; the Commonwealth does not want to reveal its case before the criminal trial and the defendant-physician says because the issues are the same, that he has the right to remain silent under the Fifth Amendment and therefore he cannot present his case; this assertion is sometimes accompanied with innuendo that the Board and the Commonwealth Attorney "are ganging up on" the physician—all in violation of his constitutional rights.

4. The Board elects to allow the criminal justice system to work its course, and thereafter, discipline the physician upon the basis of a **conviction,** and use the evidence produced at the trial. Even after a conviction of the trial court, there are exhaustive appeals.

5. The Board, after many months of awaiting the outcome, finally learns that the physician's conviction has been upheld—and he now is in prison. The law provides for a protected status for prisoners; one cannot sue a prisoner unless he consents to be sued or unless the Court appoints a Guardian ad Litem to protect his interests. Also the prisoner is entitled to be at his hearing and the costs of transportation with guards from the prisons can run to thousands of dollars with the expense to be borne by the Licensure Board, not including the expense of the Guardian ad Litem which also would probably be borne by the Board.

6. The Board reconsiders its original aim to stop the physician from practicing, protection of patients, and to discipline the concerned licensee. Since the physician is in prison the important result has been achieved and the Board elects to discipline the license when the physician is released from prison.

Almost without exception, every physician who has such a case before the Board falls into the pre-June 17, 1978 category. The Board is presently awaiting the release of those physicians. One was recently released and disciplinary procedures were immediately initiated with an accompanying temporary suspension of license pursuant to the new law. Unfortunately, this physician died within a couple of months after his release. However, in the interest of evaluating the post-June 17, 1978 procedures, it should be noted that from the time of his release until his death, the physician did not achieve active practice.

In late 1977, the Board recognized these problems and initiated the following changes in KRS Chapter 311 with the goal of removing the above described **four factors:**

(A) **Conviction of a felony involving moral turpitude.** KRS 311.595(1)(d) now reads that the Board may discipline a physician who has:

> "Been convicted, by any Court within or without the Commonwealth of Kentucky, of committing an act which is, or would be a felony under the Laws of the Commonwealth of Kentucky, or of the United States, or of any crime involving moral turpitude which is a misdemeanor under such laws."

The Board's intention was to discipline on the basis of **any** felony conviction and to broaden the area of concern to include misdemeanors involving moral turpitude.

(B) **Injunction from the local County Circuit Court.** Under the new statutes, the Board may issue simultaneously with, or after a Complaint has been filed, a temporary suspension of license requiring immediate compliance. The burden is now switched from the situation described above. The suspension remains in effect until a hearing is held on the Board's Complaint. If the physician desires a hearing he may have a hearing on an accelerated basis if he so requests; if he desires to exercise his Fifth Amendment rights, then he may do so and he has the additional option to have a hearing at which he refuses to testify, or have his hearing after his criminal trial. The basis is that the Board's first responsibility is to the public and its protection, and the license to practice medicine in the Commonwealth is a legal **privilege** granted by the Commonwealth.

(C) **Dishonorable, unethical, unprofessional conduct.** The new law has attempted to define this broad phrase such that in conjunction with KRS 311.597 the physician is statutorily placed on notice of what would constitute unacceptable conduct. (For a more complete discussion, see the April, 1979 issue of the KMA Journal entitled "Inside the Medical Licensure Board".) Once again KRS 311.595(1)(h) is now a basis for disciplinary action.

(D) **Direct information of criminal offenses.** As a result of the changes in the law, KRS 311.606(3) requires the Clerks of the Circuit and District Courts of Kentucky to report all criminal convictions of licensed physicians. In addition, in attempting to work with the various federal agencies, including the U.S. District Attorneys, on the pending criminal cases now before the Board these entities are supplying the requested information for early action by the Board.

The new statutory changes will put an end to the problems that existed prior to 1978. However, as the work of the Medical Licensure Board continues new problems emerge, e.g., the bizarre situation wherein HEW notified the Board of a physician who had been convicted of Medicaid fraud and requested the Board to investigate and discipline the physician, if necessary. However, the FBI had investigated the matter, HEW supplied the information, and the U.S. Attorney prosecuted the matter; the concerned physician pled guilty so that no public record of the evidence was ever necessary and therefore never created. Further, the FBI, HEW and the U.S. Attorney all feel that pursuant to the Freedom of Information Act that they cannot turn over information without the concerned physician's permission. The Board is faced with the prospect of filing a Complaint, and considering a just

disciplinary action with no background information, or with, at best, the concerned physician's interpretation of the facts.

The Board would like all Kentucky physicians to respond to the following questions:

A. Has this article been of interest or value to you?

B. Would you favor either or both of the following possibilities:

1. That the Board should conduct seminar(s) at the KMA conventions to acquaint members with the Medical Licensure Board and the applicable laws? and/or

2. That the Board should conduct seminar(s) at the state medical schools for graduates to acquaint them with the operation of the Medical Licensure Board and the laws applicable to their licensure?

The Board is interested in your opinions and would ask that you send your responses to:

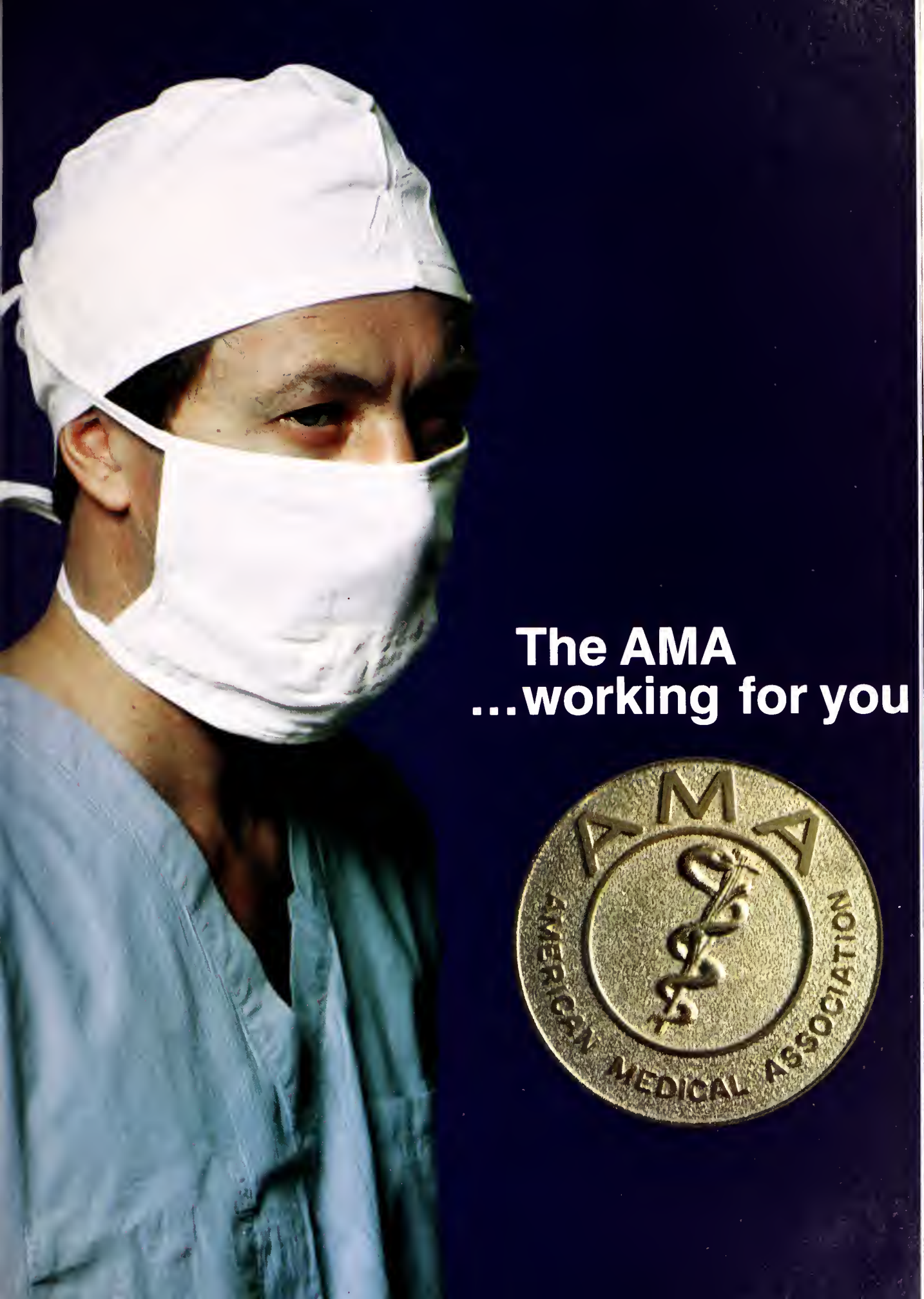
Kentucky State Board of Medical Licensure
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

J. Fox DeMoisey
Attorney for Medical Licensure

★
Specialized Service
IN
PROFESSIONAL LIABILITY INSURANCE
is a high mark of distinction

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greeno, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220
LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynalds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524


The AMA
...working for you
AMA
AMERICAN MEDICAL ASSOCIATION

Imagine...

Little more than a century ago medical practice was groping through darkness. Surgeons limited themselves to simple operations. Many of those who practiced medicine did so without a formal medical education. Diploma mills did a landslide business in competition with the few legitimate medical schools. There was little formal licensing. Since physicians could do little to treat most diseases, people often sought relief from quacks, cultists, and faith healers.

Among the competent and dedicated physicians there was an acute awareness and concern about the state of the public health and the quality of medical care. In 1847, 250 of these physicians met in Philadelphia to form a national association -the American Medical Association-whose purpose remains the same firm commitment today: *to promote the science and art of medicine and the betterment of the public health.*



Protecting Your Rights And Interests

One of the AMA's major functions is to act as the advocate for physicians' rights and for the quality of patient care. Effective representation is critical because of the federal government's mounting pressure for tighter regulation and control of medicine.

Every year, the AMA monitors, analyzes and reports on thousands of pieces of health-related legislation and regulations—at both the federal and state levels. To meet specific legislative needs in the health area, the AMA has drafted its own bills.

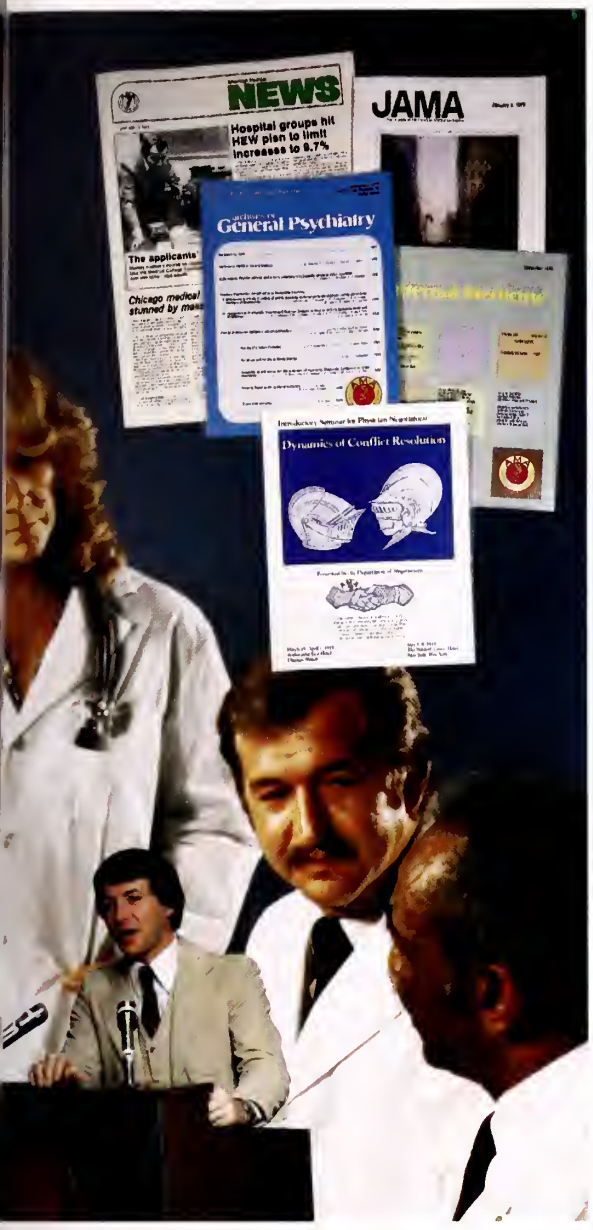
AMA officers and trustees frequently testify before Congressional committees and federal agencies. During the 95th Congress, the AMA submitted formal, written testimony or furnished witnesses to testify more than 200 times on bills and regulations affecting health care delivery. And, on several occasions, it has been necessary for the AMA to take the government to court. In fact, the AMA spent over $1,000,000 in 1978 on legal fees to defend the rights of physicians and patients.

Here are examples of the AMA representing your interests before Congress and governmental agencies:

- The AMA is challenging an FTC administrative judge's initial decision that the AMA cannot establish ethical guidelines on physician advertising and solicitation.
- The AMA is defending three antitrust suits (filed by chiropractors) to preserve medicine's First Amendment rights to speak out on public health issues concerning physicians.
- The AMA worked with hospital groups to defeat the Carter Administration's proposal for rigid cost controls on hospitals which would have adversely affected the quality of care.
- The AMA defeated proposals for federal licensure and relicensure.

The AMA is also involved in projects to improve rural, inner-city, jail and emergency care; encourage family practice in medicine; curtail TV violence; and the Auxiliary's campaign to promote adequate immunization among the millions of our youngsters.





Your Membership Benefits

AMA membership provides you with a broad range of both professional and personal benefits and services. Among them are:

PUBLICATIONS

Journal of the American Medical Association—To help you keep on top of the latest scientific developments every week.
American Medical News—Provides the latest information on events and personalities affecting the practice of medicine.
Specialty Journals—For specific scientific information in your specialty, you have a choice of one of nine specialty journals.

Members Insurance Programs

AMA insurance programs provide substantial coverage at a cost considerably lower than what you would have to pay on an individual basis. The programs available are: Group Life Insurance, Excess Major Medical, Disability Income Insurance, Supplemental "In Hospital" Insurance, Accidental Death and Dismemberment Plan, and Office Overhead Expense Insurance.

Seminars

Negotiations—Designed to help physicians develop and improve their negotiating skills.
Practice Management—Provides proven guidelines for effective and productive management of the physician's practice. Includes physical plant, personnel, procedures, and patient relations.
Speakers Training—Instructs physicians in the methods and techniques of effective public speaking.

Additional Membership Benefits

- The nation's largest physician placement service.
- CME programs—expanded and regionalized to make continuing medical education more convenient and less expensive.
- The research resources of one of the nation's most up-to-date medical libraries.



The AMA—The Standard-Bearer Of Excellence

Since its inception, the AMA has provided the leadership which has led to the excellence of medical education and the high quality of medical care in this country. No other single organization has assumed such major responsibility for the establishment and maintenance of these standards of excellence.

The AMA participates jointly with other organizations to ensure high quality in both medical education and health care delivery. This is accomplished through the accreditation of medical schools, hospitals, residency training programs, allied health professions training programs, and institutions offering continuing medical education.

Physicians can be secure in the knowledge that hospitals, and allied health professionals have been subjected to stringent training and qualifying standards. If the AMA did nothing more than serve as guardian of the educational standards of the profession, it would deserve the support of all physicians.

Where Your Dues Dollars Go

Represent the Medical Profession: 14% – To represent and serve as an advocate for the medical profession in its relations with state and federal legislative bodies and regulatory agencies. Also includes development of public relations and negotiations programs, and communications with the profession.

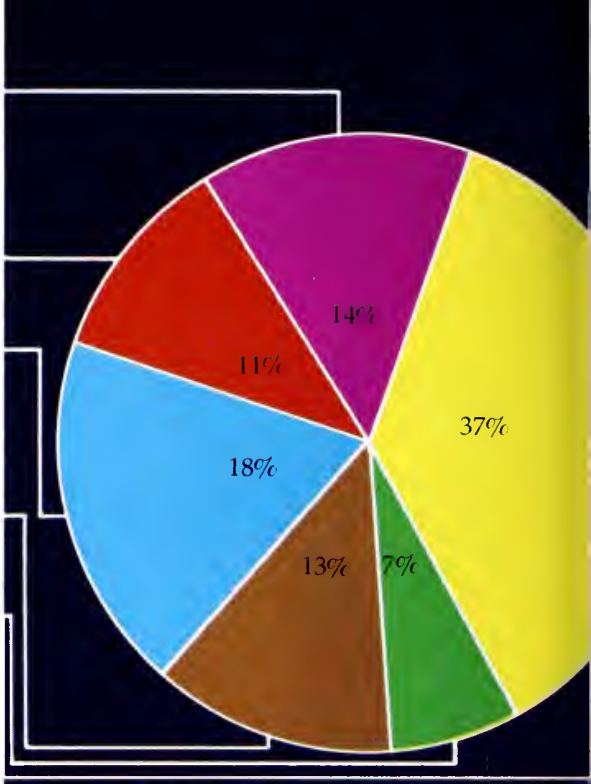
Strengthen Organized Medicine: 11% – Membership development, membership benefits and services, improved relations with and services to medical and specialty societies.

Assure and Continue to Improve the Quality of Medical Care: 18% – Accreditation of undergraduate and graduate medical education, development of continuing medical education programs, certification of physician credentials, and evaluation of the quality of medical care.

Internal Support Service Programs: 13% – Financial, planning, legal, personnel, data processing, and administrative services for the Association.

Promote the Effective Delivery of Care: 7% – Development of programs for health manpower, community health care, practice management, physician-hospital relations, health care financing, and health delivery research.

Scientific Policy and Information: 37% – Publication of scientific journals, dissemination of health information to the public, development of scientific policy, investigation of scientific concerns, such as nutrition, drugs, environmental and occupational health, and hypertension.



The AMA Needs Your Support

Membership in all levels of organized medicine is an essential component of professional citizenship and like political citizenship, should not be fragmented. Do you want a voice in government only at the city and county levels? Only at the state level? Or only at the national level? Certainly you would feel disenfranchised if you were deprived of a voice on any of these levels.

Citizenship and membership – both political and professional – is not without cost. Your dues, the cost of professional citizenship, are needed at all levels – your county and state society and the AMA – so that organized medicine can remain an effective organization working for you.

If You're Not An AMA Member, Here's How To Apply

Regular Membership – Physicians, including housestaff, and medical students who are members of their state medical societies or who are eligible for state society membership are required to join the AMA through that society. Simply contact your local medical society. (If you do not have this information, write the Department of Membership Development, AMA, and the name and address of your local society will be sent to you.)

Direct Membership – Physicians, including housestaff, and medical students who are not provided with an avenue for regular active membership through their local society due to limitations or bylaw restrictions of that society may join the AMA as direct members. To join, use the application enclosed.

Transfer Membership – An AMA member who moves from one medical society to another may maintain or renew membership while application is pending in the new medical society.

Dues

Physicians	$250	Interns, Residents	$35
First Year Practice	$125	Medical Students	$15

If you are an AMA member, you shou be justifiably proud of what your sup has helped the AMA accomplish.

If you are not a member, isn't it time y did your share to support your profession? Join the AMA now. It nee you – your membership and your active participation.



Department of Membership Development
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

EDITORIAL

The Shah's Stone

THERE has probably never been a gallstone left in the common duct with the potential, diplomatic, economic and social consequences as of that of Shah Mohammed Rez Pahlavi. The associated issues and complexity of the medical question will result in less lay interest and discussion than the recent illnesses of other celebrities.

How can an experienced surgeon in an advanced center leave an undetected stone behind? The answer is simple. Surgical skill and judgement combined with operative cholangiograms have not proven adequate to prevent retained stones as documented by occurence rates nationally of 4-8%. The operative cholangiogram is the most widely employed technique for prevention of retained stones yet it is fallible. Certainly it is not required for every cholecystectomy. Surgeons excuse the lack of cholangiography in other cases because of the time and inconvenience involved. The time necessary can be minimized by positioning the x-ray unit to the surgeons left and rotating the arm of the unit rather than moving the machine back and forth.

Failure to take a scout film during the prep is a common error. Underexposed cholangiograms cause as many retained stones as dye which is too concentrated. Two cholangiograms should be taken: the first after injection of 3-5 cc of dilute contrast media and the second x-ray after another 10-13 ccs. Another problem arises when the distal common duct is superimposed over the vertebral column. This can usually be eliminated by placing a folded surgical sheet under the patient's left buttock. Cholangiograms taken through the cystic duct are preferable because x-rays taken with a scalp vein introduced through the wall of the common duct have been implicated in the development of strictures. (The injection of dye should not be in progress when x-rays are taken because motion of stones will blur their image.) After viewing the x-rays, the surgeon should not fail to have them examined by the radiologist.

The optimal management of retained stones is quite simply—prevention. Since current technology for prevention of residual calculi is not adequate, a new tool is required and is available. The use of operative choledochoscopy combined with sound clinical judgement and operative choangiograms can reduce the incidence of retained stones to 1% and in some series has eliminated the problem entirely.

There are two types of choledochoscopes available. The rigid endoscope is certainly functional and perhaps easier to master. I prefer the fiberoptic endoscope because of its versitility. It is possible to learn choledochoscopy through clinical application, however, difficulty will be encountered initially in coordinating the instrument with the grasping forceps and baskets. An important teaching aid in choledochoscopy is the new teaching model which is produced by the Meditech Corporation. It duplicates the anatomy and endoscopic appearance of the biliary tree and will facilitate the development of skills in choledochoscopy.

An appropriate way to begin operative choledochoscopy is by direct endoscopic examination following a standard common duct exploration. With increasing experience and knowledge, direct endoscopic removal of stones follows naturally. Postoperative removal of retained stones with the fiberscope inserted thru the T-tube tract was first reported in the United States from the University of Louisville in 1976. This should not be attempted until necessary skills with the instrument have been acquired.

Another adjunct for the management of retained stones is the new T-tube. This tube, with a stem larger than its crossbar, evolved from an analysis of unsuccessful extractions of retained stones using fluoroscopy. The new T-tube looks and functions like the earlier T-tube but its widespread adoption is expected to reduce the need for reoperation for retained stones by 50% or more.

It is unwise today to proceed with surgical removal of retained stones without utilizing non-operative means of removal which achieve success rates of 90% and better. Simple neglect for four weeks after discovery of retained stones will permit 30% to pass spontaneously.

The tools to reduce, or eliminate, the problem of retained stones are available today. Their adoption is a matter of time.

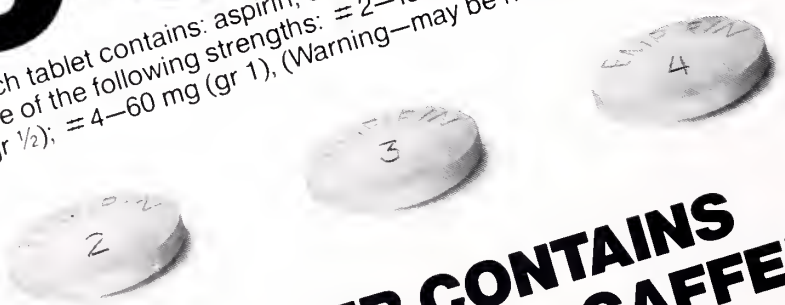
JPM

~~EMPIRIN®~~
~~COMPOUND~~
~~C CODEINE~~
IS NOW

EMPIRIN®
C CODEINE



Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: = 2—15 mg (gr ¼); = 3—30 mg (gr ½); = 4—60 mg (gr 1), (Warning—may be habit-forming)



NO LONGER CONTAINS PHENACETIN OR CAFFEINE.

ONE HUNDRED YEARS WELLCOME
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

ASSOCIATIONAL NEWS

RKMSF Accepting Applications For Scholarship Loans

The Rural Kentucky Medical Scholarship Fund is now accepting applications from students who are residents of Kentucky and have been admitted to one of Kentucky's two medical schools. The Fund, which has made loans to 466 recipients, now has 223 physicians practicing in Kentucky. Of those, 142 are still practicing in rural areas. Since its beginning, the Fund has loaned over 1½ million dollars.

A student may borrow up to $4,000 per year provided he will agree to practice in any of the 113 rural counties in the Commonwealth.

For the 1979-80 school year, the Fund loaned 15 new and 40 renewals for a total of $220,000.

G. L. Simpson, M.D., Chairman of the Fund's Board of Trustees, noted that the Fund is by far one of the most successful of its kind in the nation and continues to operate at better than 85% success rate. The Fund is especially appreciative of the support given by the State in maintaining the success of this program.

Members in the news

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Javali B. Aroon, Lexington
Jos Chas Banis, Louisville
Donald E. Blair, Morehead
Clyde M. Brassfield, Elizabethtown
Carl John Brueggemann, Covington
Edwin Lewis Bunch, Lexington
Jeffrey Phillip Callen, Louisville
John Chas Caton, Henderson
Sheldon Chase, Louisville
James Tandy Coy, III, Richmond
Leah Joan Dickstein, Louisville
James Carlisle Dodson, Russellville
Roberto A. Dominguez, Louisville
Marion A. Douglass, Magnolia
Louis D. Dubilier, Lexington
Sidney P. Edds, Paducah
Antonio Lopez Antonio, Erlanger
Magdi Zakaria Fahmy, South Williamson
Harold F. Funke, Crestwood
John Thos Gallanis, Richmond
Norman Glazer, Louisville
Muharrem Gultekin, Louisville
Kenneth Price Haywood, Nortonville
James Ross Head, Tompkinsville
James Allen Hedrick, Bardstown
Terry W. Henkel, Louisville
C. William Jansing, Owensboro
Baby Jose, Louisville
Yoon Kyung Kim, Covington
George Murray Lawson, Louisville
Robert Theodore Longshore, Covington
Howard Gregory Maddux, Marion
Teresita Bacani Oropilla, Louisville
Herbert Lynn Parsons, Mayfield
Hugh Raymond Peterson, Louisville
Darrel Estle Rains, Hopkinsville
James Sidney Rieser, Louisville
Oliver R. Roth, Ashland
Henry T. Russell, Covington
Gordon Jay Settlow, Paducah
Orson Pratt Smith, Louisville
Thomas William Smith, Frankfort
Marandapalli R. Sridharan, Louisville
Harvey Ray St.Clair, Louisville
James Lee Sublett, Louisville
Remedios Mintu Valera, Pikeville
Ronald E. Waldridge, Shelbyville
Leonard Eugene Wallace, Lexington
Frank Whalen, Harrodsburg
George Henry White, Louisville
John Cardwell Wright, Louisville
William Ray Yates, Hebron

Harold E. Kleiner, M.D., Louisville, has received the Scientific Achievement Award from the American Medical Association. Doctor Kleinert is internationally known for his work in hand and extremity surgery. He has developed many new microsurgical techniques and procedures as well as designing the necessary surgical equipment. He is a Clinical Professor of Surgery at the University of Louisville School of Medicine and the Purdue University School of Medicine.

Christopher B. Shield, M.D., Louisville, has been elected to the executive committee of the Congress of Neurological Surgeons. Doctor Shields has served as chairman of four Congress committees. He is to be Chairman of the annual Scientific Program of the Congress. Doctor Shields is Associate Professor of Surgery at the University of Louisville School of Medicine, and is on active staff at North-Children's Hospitals, University Hospital and the Veterans Administration Hospital. His major interest is in vascular neurosurgery.

Headquarters Activity

JANUARY

1	Office Closed
3-5	AMA State Health Legislation Meeting, Phoenix, Arizona
6-9	Joint Conference on Medical Conventions, Kansas City
8	*Journal* Editors, Louisville
9	Ad Hoc Committee on Medical Ethics, Louisville
10	Board of Medical Licensure
10	Committee of Physicians' Health

FEBRUARY

12	*Journal* Editors, Louisville
21-24	AMA Leadership Conference, Chicago

MARCH

11	*Journal* Editors, Louisville
20	Budget Committee, Louisville
27	Executive Committee, Louisville

APRIL

2-3	Board of Trustees, Louisville
8	*Journal* Editors, Louisville
22-23	New Physicians Workshops, Louisville
24	Office Managers Workshop, Louisville
24	Medical Assistants Workshop, Louisville

CHANGE OF ADDRESS

Please notify the Kentucky Medical Association of any changes in address

Help keep the mailing list up to date

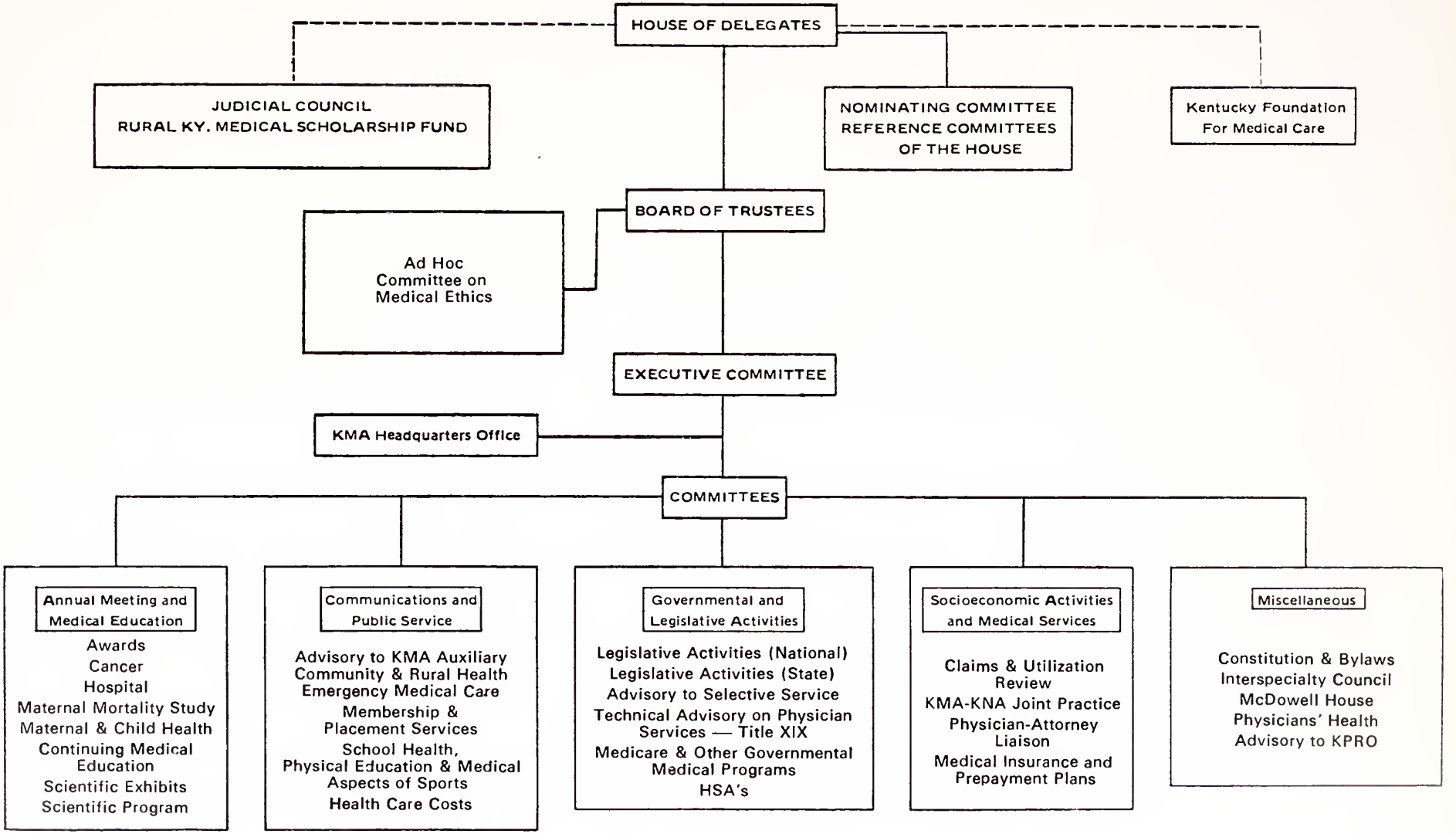
KMA

Annual Meeting

September 22-25 1980

Ramada Inn
Bluegrass Convention Center
Louisville, Kentucky

KMA Organization Chart — Revised November 1979



Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

KENTUCKY EMERGENCY PHYSICIAN—Lovely community of 10,000 in western Kentucky near Paducah needs two physicians to share evening rotations in the emergency department. 10 to 15 patients per 12-hour shift. Income excellent for this volume. For additional details, contact Tom Cooper, M.D., 970 Executive Parkway, St. Louis, Missouri 63141, or call toll free 1-800-325-3982, ext. 225.

EMERGENCY PHYSICIAN needed to share evening rotations in this emergency department located in a lovely community of 10,000 near Paducah; 10-15 patients seen per 12 hour shift; excellent compensation. For details contact Rena Ballard, 970 Executive Parkway, St. Louis, Missouri 63141 or call toll-free 1-800-325-3982.

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition. (502) 895-5429.

Practice what we teach.

Today there are over 31 million men, women and children suffering from the many forms of arthritis and related rheumatic diseases. And there just aren't enough trained rheumatologists to help them.

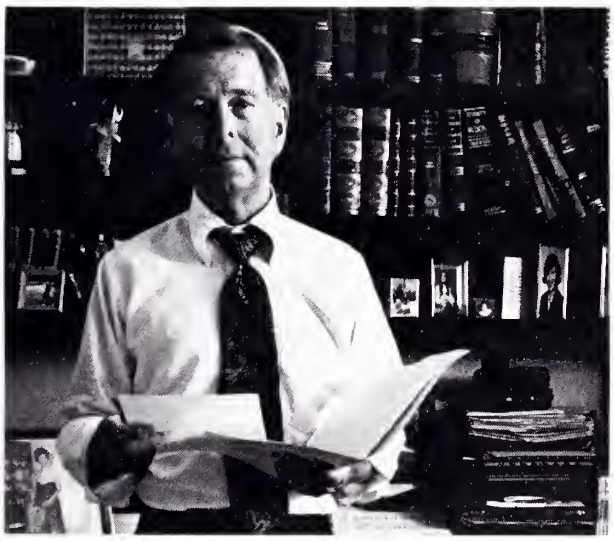
That's why arthritis sufferers need your help.

They must depend heavily on the family practitioner for better diagnosis, more effective patient treatment.

Contact your local Arthritis Foundation chapter for the latest information on arthritis. This includes continuing educational seminars by leading rheumatologists, scientific meetings, "outreach" programs—as well as the "Bulletin on the Rheumatic Diseases," "Arthritis and Rheumatism Journal," "Primer on the Rheumatic Diseases," audio cassettes and other professional materials. Free disease handbooks and medication pamphlets are also available to patients.

Please. Let us help your practice with what we teach.

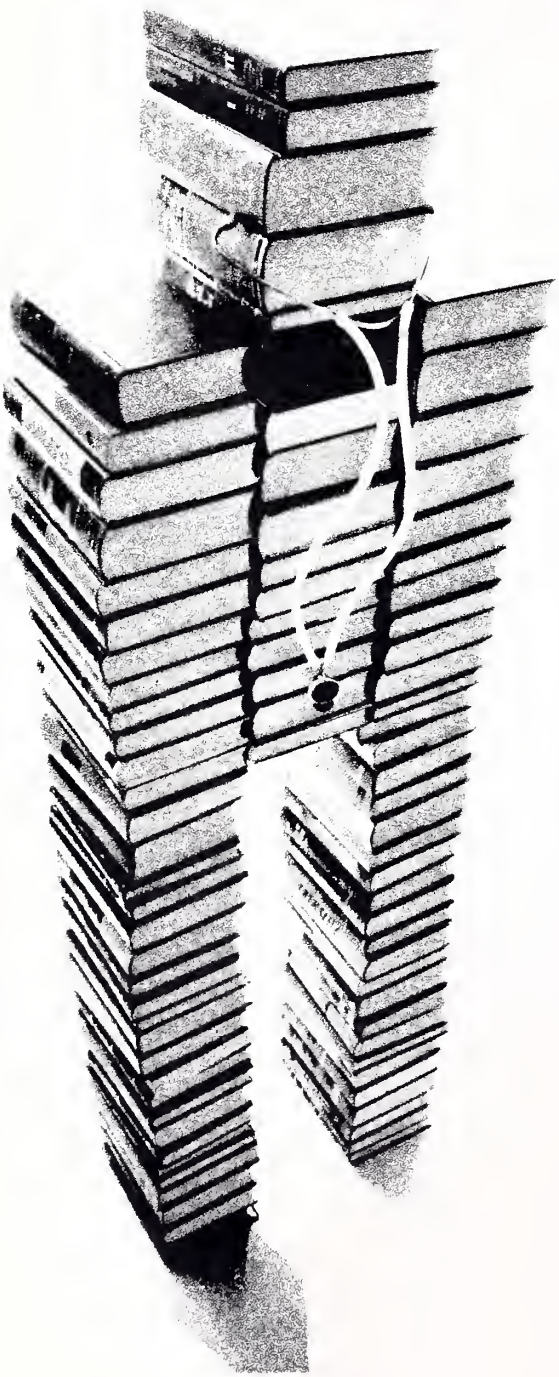
The Arthritis Foundation helps doctors help.



ARTHRITIS FOUNDATION

A public service of this magazine.

Anatomy of a Doctor.



You know what it takes to make a doctor. The motivation. The years of study and training. The dedication. The hard work.

But from the criticism leveled at doctors lately you'd think neither the public nor press had any idea.

It may surprise you, but the public does.

This was evidenced in a recent Harris Poll. In measuring public respect for U.S. leadership, it showed a drastic drop in the past five years. And "a majority of Americans is currently willing to express a 'great deal of confidence' in only one profession—medicine—on a list covering 16 types of activity." And that list included Congress and the Supreme Court.

People still look at their doctors as men to be respected and as men of integrity.

This is the true story of the American doctor. And one which the AMA is constantly telling the public as part of its communications program.

In newspapers and magazines, the AMA tells what it takes to be a doctor. American medicine's achievements. And to express the profession's concern by providing information to help every American lead a healthier life.

We can be an even more effective spokesman...with your support. Find out more about what the AMA does for you and the public. Send for a free pamphlet. Write: Dept. DW, at the address below.

JOIN US.
WE CAN DO MUCH MORE TOGETHER.

American Medical Association
535 North Dearborn Street/Chicago, Illinois 60610

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Diagnostic Electron Microscopy

Antimicrobial Agents, Case #14: Acute Pharyngitis

Spontaneous Gastroduodenal Fistula

February 1980
Volume 78
Number 2

The Journal Of The Kentucky Medical Association

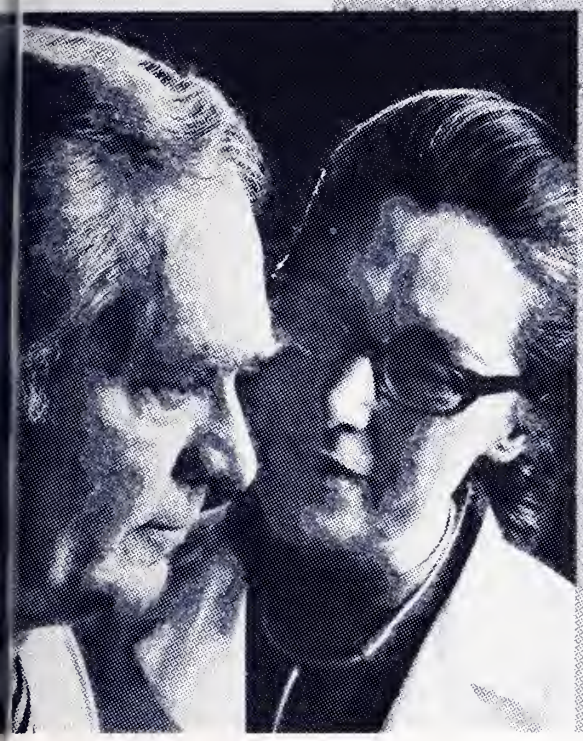
LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA



proven antianxiety

Highly specific calming action virtually free of unwanted side effects: this was the remarkable clinical promise of Librium (chlordiazepoxide HCl). **And today this promise continues to be fulfilled in a wide variety of patients you see every day.**

ROCHE



The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium® ℞
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules

synonymous with relief of anxiety

- ☐ An unsurpassed safety record
- ☐ Minimal effect on mental acuity, in proper dosage
- ☐ Predictable patient response
- ☐ Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
MAR 3 - 1980

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally; making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults*: Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients*: 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

ROCHE Roche Products Inc
Manati, Puerto Rico 00701

ORTHOPEDIC SURGEON

Needed to associate in private practice with Agustin Sierra, M.D. FACS, in Henderson, KY.

Practice established for twelve years.

Good hospital and Emergency Room facilities.

Office adjacent to the hospital.

Financial arrangements open to discussion.

ADDRESS: 1413 North Elm Street, Henderson, KY 42420

PHONE: 502-826-8664

Causes and Prevention

of

Environmental Cancers

sponsored by American Cancer Society, Kentucky Division, Inc.

March 7-8, 1980

Hyatt Regency Hotel, Louisville, Kentucky

The program will be open to all interested professionals and the lay public by reservation. No registration fee.

For more information contact:
American Cancer Society, Kentucky Division Inc.
1169 Eastern Parkway
Louisville, Ky. 40217

The Journal Of The Kentucky Medical Association

USPS 280-700

SCIENTIFIC ARTICLES

Diagnostic Electron Microscopy
Per Henrik Becher Carstens, M.D. and Charles David Foreman, B.A. 71

Clinical Approach to the Choice of Antimicrobial Agents, Case #14: Acute Pharyngitis
Paul J. Alessi, D.O., John A. Van Arsdall, II, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D. 79

Spontaneous Gastroduodenal Fistula
Tsung-Yao Huang, M.D. and Gary H. Peterson, M.D. 85

Hypereosinophilic Syndrome: A Review of Clinical Manifestations and Therapy (Grand Rounds)
Philip A. DeSimone, M.D. 88

EDITORIAL

Doctors and Depression 93

SPECIAL ARTICLE

Beyond The Ivory Tower: Pediatric Post-graduate Training at U of L 95

ASSOCIATIONAL NEWS

Scientific Exhibits Application 106
Practice Management Workshop set for April 22-24 109
Open Hearing On Ethics 109
How KMA Monitors and Reacts to Pending Legislation 111
Historical Exhibit Opens at U of L 112
KMA Annual Meeting Notice 114

REGULAR FEATURES

Postgraduate Opportunities ... 68
President's Page 69
Manuscript Information 73
Letters to the Editor 101
Book Reviews 103
Members in the News 110
Headquarters Activity 110

Pubilshed at 3532 Ephraim McDowell Drive, Louisvllie, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10 (Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send chonge of oddress to Journol of the Kentucky Medicol Associotion, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

Volume 78 • February 1980

Issued Monthly Under the Direction of the Board of Trustees

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• **EXECUTIVE EDITOR**
Robert G. Cox

• **MANAGING EDITOR**
Joseph A. Witherington, Jr.

• **ASSISTANT MANAGING EDITOR**
Donna M. Young

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific
John W. Greene, Jr., M.D., Maternal Mortality

• **BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES**

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Coak, III, M.D.
Stanley Lawenbraun, M.D.
Eugene H. Canner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 1980

Vice Speaker, House of Delegates PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees .... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 2101 Nicholasville Road, Lexington 40503—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st .... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd .... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd .... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th .... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th .... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th .... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th .... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th .... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th .... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th .... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th .... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th .... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th .... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th .... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th .... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

FEBRUARY BUYERS GUIDE FOR JOURNAL OF KMA

Aetna Life & Casualty 70
Boehringer Ingelheim Ltd. 98, 99, 100
Burroughs Wellcome Company 94
Classified Column 54
General Leasing Corporation 102
Heart Association of Louisville and Jefferson County 104, 105
Insurance Corporation of America 107
Kentucky Medical Insurance Company 82, 83, 84
A.P. Lee Agency, Inc. 74
Eli Lilly & Company 108
Medical Protective Company 103
Merrell-National, Inc. 66, 67, 68, 96, 97
Orthopedic Surgeon 62
Roche Laboratories 60, 61, 62, 115, 116
William H. Rorer Inc. 89, 90, 91, 92
Smith, Kline & French 65
Wyeth Laboratories 75, 76, 77, 78



Tagamet®

brand of

cimetidine

How Supplied:

Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

When painful spasm is the presenting symptom...



...in the functional bowel/irritable bowel syndrome*

Bentyl®

(dicyclomine hydrochloride USP)

10 mg. capsules, 20 mg. tablets,
10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity with minimal anticholinergic side effects†

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

Merrell

8-4420 (Y736A) MNR-804

Bentyl®

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences–National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis. WARNINGS In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. ADVERSE REACTIONS Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include: xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally focal irritation. DOSAGE AND ADMINISTRATION Dosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg. capsule and syrup: *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg.: *Adults*: 1 tablet three or four times daily. Bentyl Injection: *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVERDOSE The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of October, 1978

Injectable dosage forms manufactured by CONNAUGHT LABORATORIES, INC., Swiftwater, Pennsylvania 18370 or TAYLOR PHARMACAL COMPANY, Decatur, Illinois 62525 for MERRELL-NATIONAL LABORATORIES, Division of Richardson-Merrell Inc., Cincinnati, Ohio 45215, U.S.A.

Merrell

MERRELL NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Postgraduate Opportunities

JANUARY

30 American Society for Parenteral and Enteral Nutrition, Fourth Clinical Congress, Palmer House, Chicago

FEBRUARY

15-16 Fiberoptic Bronchoscopy: Workshop, Session II* Hyatt Regency, Lexington

24-29 11th Family Medicine Review, Session I* Hyatt Regency, Lexington

MARCH

7 C. Dwight Townes Seminar** Health Sciences Center

7-8 Causes and Prevention of Environmental Cancers, Hyatt Regency, Louisville

APRIL

3 25th Annual Spring Clinical Conference, Specialty Problems in Primary Care, Lexington Clinic, Lexington

19 Kentucky Society for Gastrointestinal Endoscopy, Second Annual Meeting, Hyatt Regency, Louisville

28-30 Southeastern Surgical Congress, 48th Annual Assembly, Marriott Hotel, Atlanta

MAY

11-16 11th Family Medicine Review, Session II* Hyatt Regency Hotel, Lexington

JUNE

8-13 11th Family Medicine Review, Session III* Hyatt Regency Hotel, Lexington

18-19 Emergency Medical Care Seminar, Executive West, Louisville

22-28 5th Family Medicine Review** Galt House, Louisville

Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161

***For further information contact: Gerald D. Swim, Executive Director, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*



MESSAGE FROM THE PRESIDENT

HISTORICALLY, with the advent of the new year, we make resolutions to serve as goals and objectives to be achieved during the year. The new decade, however, gives us added incentive to formulate long-range plans for our organization.

In order for any programs to be effective, they must serve the needs of the members. Since I have been involved in the leadership of KMA, I have been constantly impressed by the efficiency of the democratic process in which we operate. I have the general feeling, however, that in some instances this is not generally appreciated by the membership. Consequently, one of my resolutions for the organization is to promote a new understanding among our members and also to the Kentucky community at large. Preliminary discussions are underway with professional help to make our communications more effective.

A second objective for this current year and for the decade to come is to formulate a long-range study program within KMA. We can then better anticipate the changes in medicine in the coming years and, therefore, be a more influential leader in shaping the practice of medicine for the benefit of our patients.

There are many ramifications to both of these proposals which are not discussed here but will certainly be considered.

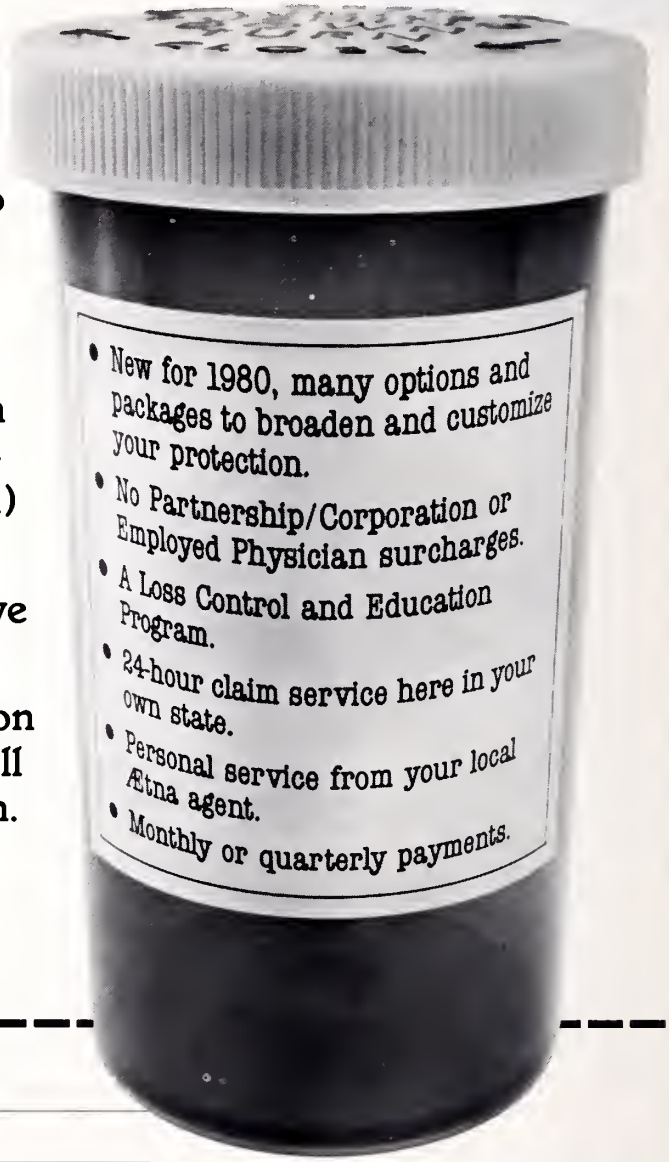
We offer our warmest congratulations to Doctor Grady Stumbo who will serve as the Secretary of the Department of Human Resources. I am sure that Grady is interested in working closely with us, and we certainly wish him well.

Bob Cox was recently elected to the presidency of the Professional Convention Management Association, and we are justly proud of his achievements and also to have him serve as KMA's Executive Vice President.

The legislature is now in session and bills are currently being viewed and introduced, and, as noted in a president's communication, many are health related. Your officers will meet with the legislative committee chairman (Quick Action Committee) every Wednesday evening in Frankfort during the session. We will be contacting many of you for your thoughts and counsel. If you wish to reach us during these meetings, please contact our Frankfort office number (502) 695-4138.

ROBERT S. HOWELL, M.D
KMA President

Ætna prescribes 11.6% off 1980 professional liability insurance.



To make you feel better, the cost of professional liability insurance for Kentucky physicians has been reduced a healthy 11.6%. Yet coverages are up. (See label on right.)

Plus, physicians in their first or second year of practice will receive substantial additional discounts.

Make your incision, cut the coupon and mail. Without obligation, we'll see that you get more information.

Name or Group _____

Address _____

City _____ State _____ Zip _____

My present insurance expires on _____

Return to: Carroll York—CID manager
Ætna Life & Casualty
2000 First National Tower
101 South 5th Street
Louisville, KY 40202

Ætna
LIFE & CASUALTY

The Standard Fire Insurance Company

The Journal Of The Kentucky Medical Association

February 1980 Volume 78 Number 2

Diagnostic Electron Microscopy

Per Henrik Becher Carstens, M.D. and Charles David Foreman, B.A.

Diagnostic electron microscopy, an anatomic pathology subspecialty, has started to show its usefulness in the diagnosis of neoplastic as well as non-neoplastic lesions. A short description of procedures for submitting tissue to an electron microscopy laboratory precedes two illustrating cases.

TODAY most larger medical centers around the world have electron microscopy facilities within their pathology departments. This new technique was first utilized for research, but has slowly been introduced into routine diagnostic work. It has mainly been used in the interpretation of renal biopsies and together with immunofluorescent studies formed the foundation for our current concept and classification of renal glomerular diseases. Electron microscopy, however, also offers an opportunity to study cellular elements invisible by light microscopy. The detection of certain cellular features, such as melanosomes, cilia or microvilli, secretory granules, desmosomes and myofilaments can help identify the cell of origin of a given lesion. This can be very useful in the diagnosis of certain tumors. It is important, however, to realize that electron microscopy will not help differentiate between benign and malignant neoplasms, only give an indication of degree of differentiation.

Diagnostic electron microscopy should only be attempted for specific purposes: to determine cell of origin, the presence of specific disease processes, or the presence of certain microorganisms. Electron microscopy should not therefore be routinely employed on all surgical pathology specimens, but rather on the merit of the individual case. Probably less than .1% of all surgical pathology cases would benefit from diagnostic electron microscopy, since most surgical pathology specimens can be accurately diagnosed by gross and light microscopic examination alone.

Up to now diagnostic oncologic electron microscopy seems to have been most useful in the diagnosis of certain forms of primary and metastatic carcinomas, small round cell tumors and sarcomas; but the applications are increasing rapidly[1,2]

The tissue for electron microscopy has to be well fixed, properly sampled, processed and interpreted. To insure proper fixation, it is important for the submitting physician to think of electron microscopy before committing the tissue to a less satisfactory fixative than glutaraldehyde. If during frozen section an interesting or difficult diagnostic problem arises, it would be easy to fix a 1 mm thin slice of viable tissue immediately in glutaraldehyde. If the diagnostic problem persists after permanent paraffin embedded tissue has become available, optimally fixed tissue is then available for electron microscopic examination. We prefer to receive specimens in small plastic containers filled with 3% buffered glutaraldehyde solution. In this way the tissue cannot cling to the wall of the container and dry out. The individual fragments should not exceed one millimeter in any plane and great care should be exercised in securing viable, representative areas of the lesion in question. The specimen should be delivered as quickly as possible to our laboratory, together with

From the Department of Pathology, University of Louisville School of Medicine, P.O. Box 35260, Louisville, Ky. 40232

full clinical information and a representative light microscopic slide.

Formalin fixed tissue, if properly made up and buffered, can offer an acceptable alternative, if the tissue is retrieved within a short period. Even paraffin embedded tissue can sometimes be retrieved for electron microscopy with good results,[3,4] see case #2.

Due to the considerable time involved in the final processing, we only process once a week. Oral reports to the submitting physician can take from three to 10 days. The oral report will be followed by a written report a couple of days later.

In 1978, 226 different specimens were received in our laboratory; 166 or 75% were submitted for diagnostic electron microscopy, the rest for research. The biggest portion of diagnostic cases were renal biopsies followed by various tumors.

We would like to demonstrate two recent cases submitted to our laboratory where electron microscopy was successful in solving an oncologic diagnostic problem.

Case Report

Case #1: A 21-year-old male presented with an upper left lung consolidation of three months duration. Fiberoptic bronchoscopy revealed an obstructive mass. Left pneumonectomy was performed showing a poorly differentiated spindle cell neoplasm (Figure 1). Tissue for electron microscopy was immediately fixed in glu-

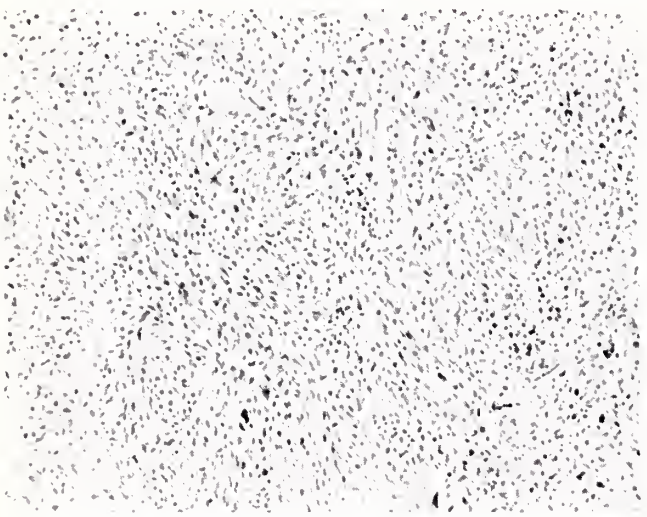


FIG. 1: Case #1. Spindle cell neoplasm. (160x).

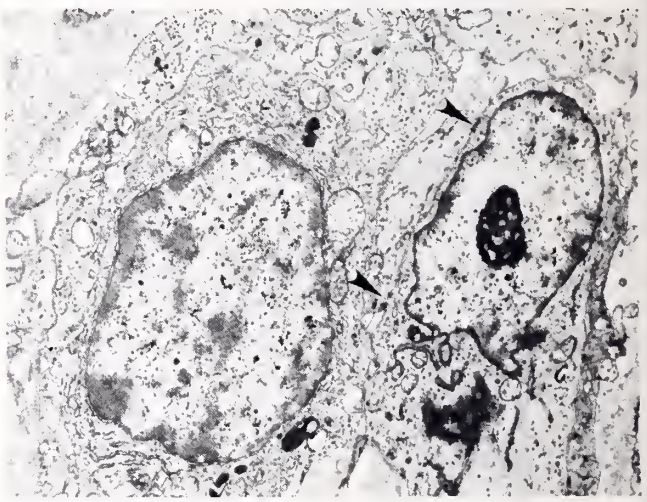


FIG. 2: Case #1. Electron photomicrograph. Two epithelial cells with numerous desmosomes (arrows). (2500x).

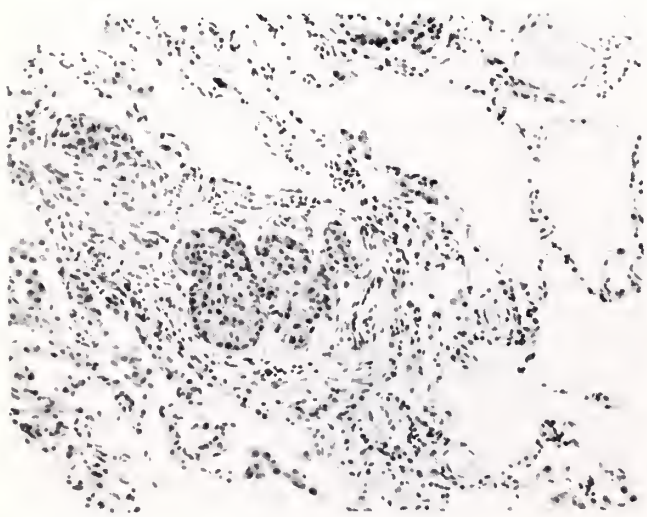


FIG. 3: Case #2. Lung with metastatic carcinoma. (160x).

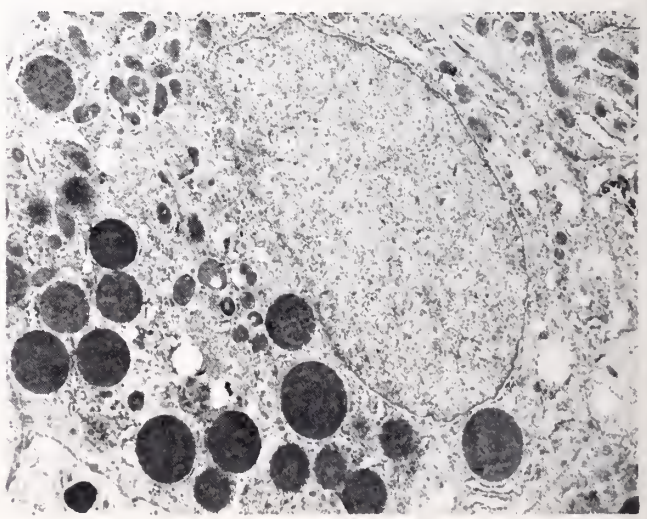


FIG. 4: Case #2. Electron photomicrograph. The epithelial cell contains several large, electron-dense, membrane-bound granules, similar to zymogen granules. (5000x).

teraldehyde. Bronchial lymph nodes and margins were free of tumor. The differential diagnosis included leiomyosarcoma and poorly differentiated carcinoma. Consultation from Memorial Sloan-Kettering Cancer Center supported a diagnosis of leiomyosarcoma while consultation from New England Deaconess Hospital supported poorly differentiated carcinoma. Electron microscopy (Figure 2) showed large irregular cells, some multinucleated, joined together by desmosome-like structures. Occasionally, intracytoplasmic cilia were noted. No basal lamina material or myofilaments were noted. The electron microscopy findings were therefore consistent with an undifferentiated carcinoma and quite similar to an electron microscopy report of giant cell carcinoma of the lung[5].

Case #2: A 45-year-old male with several months history of cough and increasing dyspnea, showed extensive bilateral pulmonary infiltrates on chest x-ray. On exploratory thoracotomy, multiple small, seed-like infiltrates were noted. Light microscopy (Figure 3) showed metastic carcinoma of unknown origin. All tissue was embedded in paraffin. Small fragments were retrieved from the paraffin block and reembedded in plastic. Electron microscopy (Figure 4) demonstrated oval cells arranged around small irregular lumina with large apical membrane-bound, electron-dense granules with great similarity to zymogen granules. The plasma membrane also possessed microvilli. The electron microscopic findings were therefore consistent with a well differentiated neoplasm of exocrine pancreatic origin. Appropriate chemotherapy was started with good response.

References 1. Bonikos DS, Bensch KG, and Kempson RL. The contribution of electron microscopy to the differential diagnosis of tumors. *Hum Path* 158 417-444, 1976. 2. Mackay B, and Osborne BM. The contribution of electron microscopy to the diagnosis of tumors. *Pathobiology Annual 1978*, edited by Harry L Ioachim. New York, Raven Press, 1978, pp 359-405. 3. Carstens PHB, and Broghamer Jr, WL, and Hire D. Malignant fibrillocaveolated cell carcinoma of the human intestinal tract. *Hum Path* 7 505-517, 1976. 4. Carstens PHB, and Broghamer Jr, WL. Duodenal carcinoid with cytoplasmic whorls of microfilaments. *J Path* 124 235-239, 1978. 5. Wang NS, Seemayer TA, Ahmed MN, and Knaack J. Giant cell carcinoma of the lung. *Hum Pathol* 7 3-16, 1976.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

"One trouble with the future is that it usually arrives before we're ready for it." —*Arnold H. Glasow*

DON'T PUT OFF LOOKING OVER YOUR DISABILITY NEEDS.

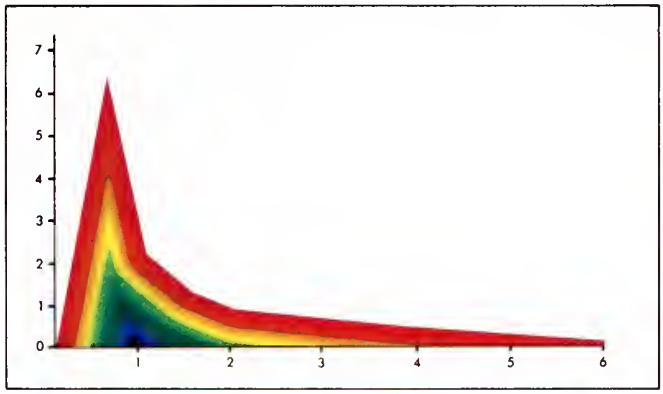
KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

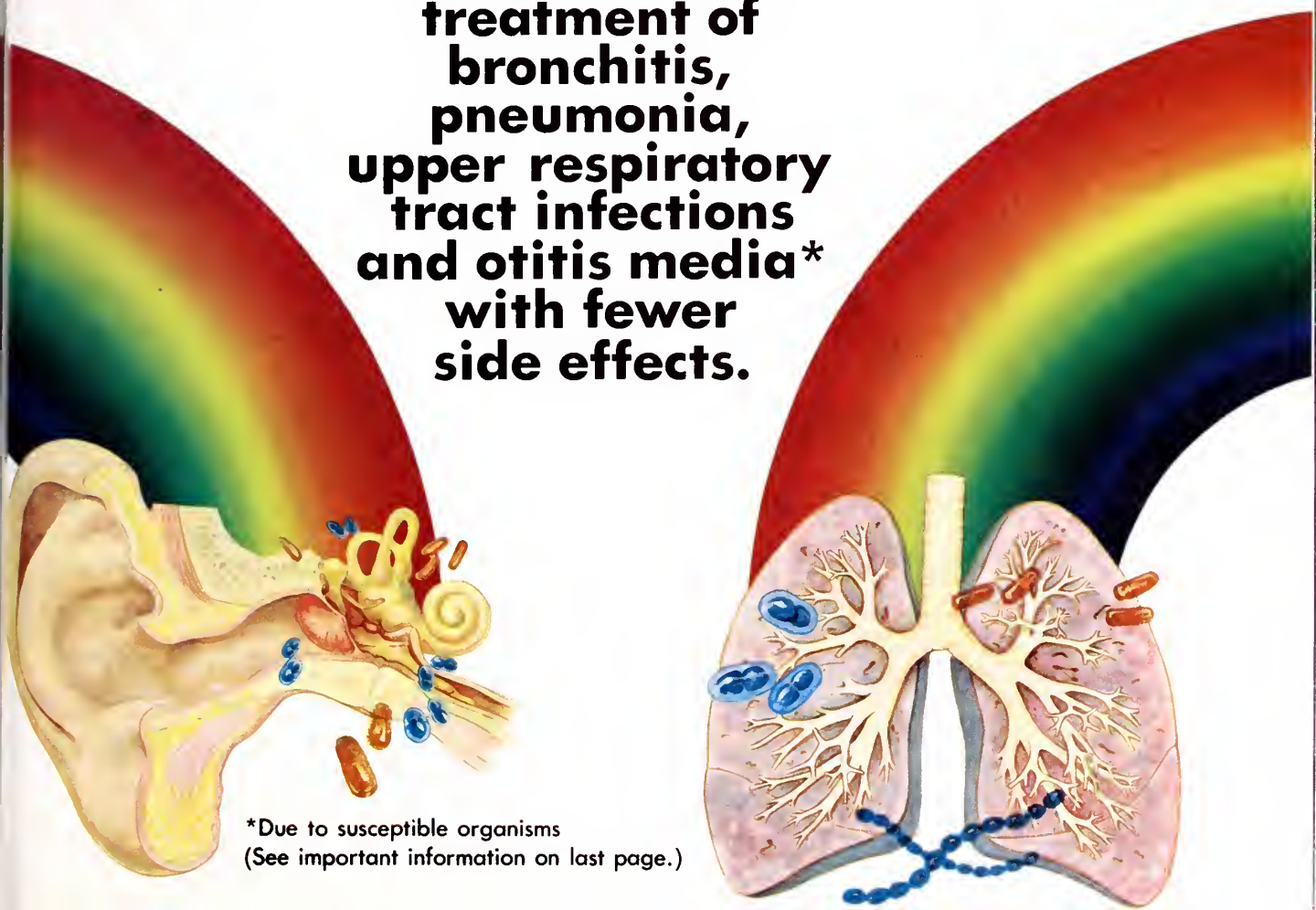
more than just spectrum



New CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Efficacy proven in the treatment of bronchitis, pneumonia, upper respiratory tract infections and otitis media* with fewer side effects.



*Due to susceptible organisms
(See important information on last page.)

New CYCLAPEN®
(cyclacillin) Tablets/ Suspension

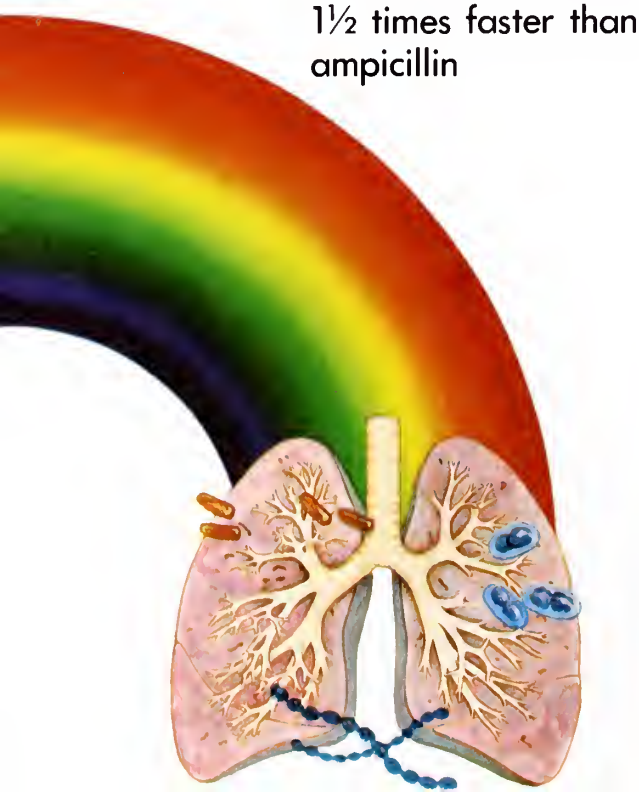
efficacy with fewer side
ampicillin confirmed in
studies of 2,581

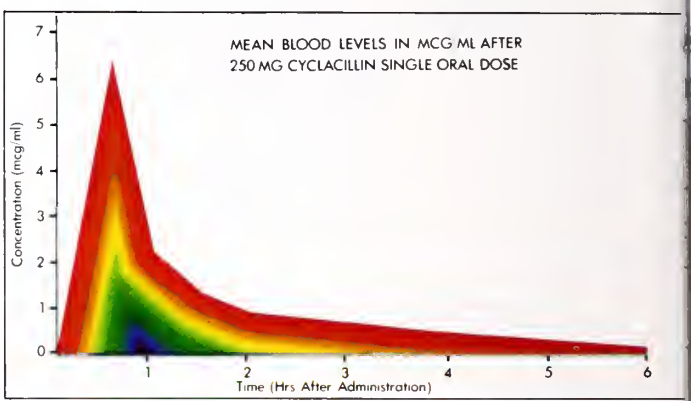
Rapid, virtually complete absorption from GI tract

Rapid onset of action—mean peak serum levels within 30 minutes

Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)

Rapidly excreted unchanged in the urine—1½ times faster than ampicillin





High cure rate with CYCLAPEN®		
Causative Organism	Bronchitis/Pneumonia†	No. of Patients
S. pneumoniae	100 / 95	73
Chronic Bronchitis† (acute exacerbation)		
H. influenzae	92 — Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H influenzae*	12
Streptococcal Sore Throat†		
Group A beta-hemolytic Streptococcus	100 / 86	44

% Clinical Response
% Bacterial Eradication

more than just spectrum
in bronchitis, pneumonic
and upper respiratory tract infections†

*Includes all patients treated. 2,415 evaluated for safety; 1,819 evaluated for efficacy.

†Due to susceptible organisms.

Copyright © 1979, Wyeth Laboratories. All rights reserved.

effects than
louble-blind
patients*

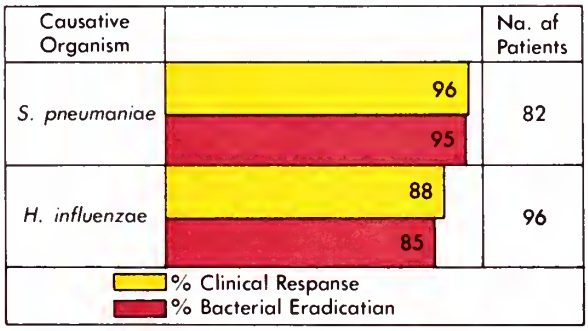


wer side effects with CYCLAPEN® in
uble-blind studies to date[1,2]

Total number of drug-related side effects in all patients	
CYCLAPEN®	128 of 1,286 (10%) of patients
ampicillin	202 of 1,129 (18%) of patients
Difference statistically significant (P <0.001)	

more than just spectrum in otitis media

Clinical efficacy of CYCLAPEN® in atitis media†



YCLAPEN® (cyclacillin)
fective for bronchitis, pneumonia,
nd upper respiratory tract infections†

- Excellent clinical results in bronchitis, pneumonia and upper respiratory tract infections
- Significantly lower incidence of diarrhea and skin rash

Gald JA, Hegarty CP, Deitch MW, Walker BR: Dauble-blind clinical trials af aral cyclacillin and ampicillin, *Antimicrab Ag Chemother* 15:55-58, (Jan.) 1979.

Data an file, Wyeth Labarataries.

more than just spectrum

CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Wyeth Laboratories
Philadelphia, Pa 19101

ee important information on next page)

New from Wyeth Laboratories

CYCLAPEN®
(cyclacillin) Tablets/ Suspension



more than just spectrum in bronchitis, pneumonia, upper respiratory tract infections and otitis media*

- Rapid, virtually complete absorption from GI tract
- Rapid onset of action—mean peak serum levels within 30 minutes
- Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)
- Rapidly excreted unchanged in the urine—1½ times faster than ampicillin
- Significantly fewer episodes of diarrhea and skin rash than reported with ampicillin in studies to date
- Excellent clinical response and outstanding bacterial eradication documented in double-blind studies involving 2,581 patients
- New CYCLAPEN® Suspension—great-tasting raspberry punch flavor

*Due to susceptible organisms.

How Supplied

CYCLAPEN® (cyclacillin) tablets:
250 mg scored tablets
500 mg scored tablets

CYCLAPEN® (cyclacillin) for oral suspension
125 mg per 5 ml:
100 ml and 200 ml bottles
250 mg per 5 ml:
100 ml and 200 ml bottles

Indications

Cyclapen® (cyclacillin) has less in vitro activity than other drugs in the ampicillin class of antibiotics and its use should be confined to the indications listed below

Cyclapen® is indicated for the treatment of the following infections

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci

Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)

Otitis Media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*

Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis* (This drug should not be used in any infections caused by *E. coli* and *P. mirabilis* other than urinary tract infections.)

NOTE: Cultures and susceptibility tests should be performed initially and during treatment to monitor the effectiveness of therapy and the susceptibility of bacteria. Therapy may be instituted prior to the results of sensitivity testing.

Contraindications

The use of this drug is contraindicated in individuals with a history of an allergic reaction to penicillins.

Warnings

CYCLACILLIN SHOULD ONLY BE PRESCRIBED FOR THE INDICATIONS LISTED IN THIS INSERT.

CYCLACILLIN HAS LESS *IN VITRO* ACTIVITY THAN OTHER DRUGS OF THE AMPICILLIN CLASS ANTIBIOTICS. HOWEVER, CLINICAL TRIALS HAVE DEMONSTRATED THAT IT IS EFFICACIOUS FOR THE RECOMMENDED INDICATIONS.

SERIOUS AND OCCASIONAL FATAL HYPERSENSITIVITY (ANAPHYLACTOID) REACTIONS HAVE BEEN REPORTED IN PATIENTS RECEIVING PENICILLIN.

ALTHOUGH ANAPHYLAXIS IS MORE FREQUENT FOLLOWING PARENTERAL ADMINISTRATION, IT HAS OCCURRED IN PATIENTS ON ORAL PENICILLINS. THESE REACTIONS ARE MORE APT TO OCCUR IN INDIVIDUALS WITH A HISTORY OF SENSITIVITY TO MULTIPLE ALLERGENS. THERE ARE REPORTS OF PATIENTS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY REACTIONS WHO EXPERIENCED SEVERE HYPERSENSITIVITY REACTIONS WHEN TREATED WITH A CEPHALOSPORIN. BEFORE THERAPY WITH A PENICILLIN, CAREFUL INQUIRY SHOULD BE MADE ABOUT PREVIOUS HYPERSENSITIVITY REACTIONS TO PENICILLINS, CEPHALOSPORINS, AND OTHER ALLERGENS. IF AN ALLERGIC REACTION OCCURS, THE DRUG SHOULD BE DISCONTINUED AND APPROPRIATE THERAPY SHOULD BE INITIATED. SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN, INTRAVENOUS STEROIDS, AIRWAY MANAGEMENT, INCLUDING INTUBATION, SHOULD ALSO BE ADMINISTERED AS INDICATED.

Precautions

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

PREGNANCY: Pregnancy Category B. Reproduction studies have been performed in mice and rats at doses up to ten times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when cyclacillin is administered to a nursing woman.

Adverse Reactions

The oral administration of cyclacillin is generally well tolerated.

As with other penicillins, untoward reactions of the sensitivity phenomena are likely to occur, particularly in individuals who have previously demonstrated hypersensitivity to penicillins or in those with a history of allergy, asthma, h fever, or urticaria.

The following adverse reactions have been reported with the use of cyclacill diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiti (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolat instances of headache, dizziness, abdominal pain, vaginitis, and urticaria ha been reported. (See WARNINGS.)

Other less frequent adverse reactions which may occur and that have be reported during therapy with other penicillins are: anemia, thrombocytopen thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. The reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reporte

Dosage and Administration

INFECTION*	ADULTS	CHILDREN
		Dosage should not resu in a dose higher than th for adults.
Respiratory Tract		
Tonsillitis & Pharyngitis**	250 mg q.i.d. in equally spaced doses	body weight <20 kg (lbs) 125 mg q.i.d. equally spaced doses body weight >20 kg (+ tbs) 250 mg q.i.d equally spaced doses
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d. in equally spaced doses	50 mg/kg/day q.i.d equally spaced doses
Chronic Infections	500 mg q.i.d. in equally spaced doses	100 mg/kg/day q.i.d equally spaced doses
Otitis Media	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 mg/kg/day equally spaced doses d pending on severity
Skin & Skin Structures	250 mg to 500 mg q.i.d in equally spaced doses depending on severity	50 to 100 mg/kg/day equally spaced doses d pending on severity
Urinary Tract	500 mg q.i.d. in equally spaced doses	100 mg/kg/day in equa spaced doses

*As with antibiotic therapy generally, treatment should be continued for minimum of 48 to 72 hours after the patient becomes asymptomatic or un evidence of bacterial eradication has been obtained.

**In infections caused by Group A beta-hemolytic streptococci, a minimum 10 days of treatment is recommended to guard against the risk of rheumat fever or glomerulonephritis.

In the treatment of chronic urinary tract infection, frequent bacteriologic a clinical appraisal is necessary during therapy and may be required for sever months afterwards.

Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure

Based on a dosage of 500 mg q.i.d., the following adjustment in dosa interval is recommended:

Patients with a creatinine clearance of >50 ml/min need no do age interval adjustment.

Patients with a creatinine clearance of 30-50 ml/min should receive fu doses every 12 hours.

Patients with a creatinine clearance of between 15-30 ml/min shou receive full doses every 18 hours.

Patients with a creatinine clearance of between 10-15 ml/min shou receive full doses every 24 hours.

In patients with a creatinine clearance of ≤10 ml/min o serum creatinine values of ≥ 10 mg %, serum cyclacillin levels are recom mended to determine both subsequent dosage and frequency.

Wyeth Laboratories
Philadelphia, Pa 19101

A Clinical Approach to the Choice of Antimicrobial Agents Case Number 14: Acute Pharyngitis

Paul J. Alessi, D.O., John A. Van Arsdall, II, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D.

This is the fourteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antibiotics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

A normally healthy 7-year-old white female is seen by her family physician with the acute onset of severe sore throat, fever, chills, headache, and abdominal pain. On physical examination her oral temperature is 101.8°F; the pharynx is beefy-red and covered with a grey-white exudate having a "scummy" milk consistancy, which can be readily wiped off without bleeding. There is tender anterior cervical lymphadenopathy. Two cotton swabs are rubbed firmly over the tonsils and posterior pharynx. One is smeared for gram-stain and the other placed in transport medium for later delivery to the laboratory, or is cultured directly onto a blood agar plate in the office.

Which of the following are now appropriate alternatives?

A. Do not treat, pending receipt of culture results in 24 hours.
B. Treat with lincomycin (Lincocin®), 2 cc IM and have the patient return in two days if there has been no improvement.
C. Examine the gram stained smear of the posterior pharyngeal swab, and treat based on the results.
D. Treat with 1.2 million units of intramascular benzathine penicillin G (Bicillin®).
E. Treat with tetracycline, 250 mg p.o. qid for 10 days.

Answer: A and C are correct with D as a less desirable alternative.

This may appear to be an obvious case of bacterial pharyngitis caused by Group A beta-hemolytic streptococci *(Streptococcus pyogenes)* but in actuality this syndrome can be caused by several etiologic agents with similar clinical presentations[1]. *Streptococcus pyogenes* is the most common bacterial cause of pharyngitis[1] but *Mycoplasma pneumoniae*[1] and *Neisseria gonorrheae*[2] are being seen with greater frequency, especially in adolescents and young adults. Other rare but potentially serious pathogens include *Neisseria meningitidis, Corynebacterium diphtheriae, Treponema pallidum* and *Mycobacterium tuberculosis.* Viral pathogens[1] especially adenoviruses and the EB-virus (infectious mononucleosis)[3] are also common etiologies.

Until recently the diagnosis of streptococcal pharyngitis has been almost totally dependent upon obtaining a positive culture for Group A beta-hemolytic streptococci. Cultures can be performed inexpensively in the office[4]. The cost was $2.00 to $5.00 in 1976[5] with results available rapidly[6]. Since the rates of false-negative cultures may be high[7], a quality-control system using a reference bacteriology laboratory should be employed by the physician doing his own cultures[7,8,9]. Many physicians may feel uncomfortable about waiting 24 to 48 hours for culture results before treating with antibiotics, particularly when the patient's parents are expecting some type of therapy. It should be noted however, that antibiotics have no effect upon the clinical course of pharyngitis if they are begun 24 hours or more following the onset of symptoms[10]. Waiting 48 hours before instituting therapy does not increase the

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, P. O. Box 35260, Louisville, KY 40232.

risk of developing acute rheumatic fever or glomerulonephritis[11,12].

Factors which may assist the physician in deciding whether to begin immediate treatment include the clinical appearance of the patient, and the gram stain. It has been shown that cervical adenitis correlates well statistically with a throat culture yielding streptococci in the presence of active disease[13]. Gram stains of pharyngeal secretions have also shown good correlation with positive cultures if strict criteria are used[14]. In a recent study by Crawford, Brancato and Holmes[15], Group A beta hemolytic streptococci were cultured from 49 of 472 patients with pharyngitis. Gram stained smears of pharyngeal secretions showed the mean sensitivity, specificity and predictive value of a positive smear to be 73%, 96%, and 71% respectively. By clinical parameters the sensitivity, specificity and predictive values were only 45%, 83%, and 23%. They concluded that the gram-stained smear is the most accurate method of **early** diagnosis of streptococcal pharyngitis. Even though these are good aids, it should be emphasized that culturing is necessary[16]. The gram stains allow us to initiate therapy promptly only when polymorphonuclear leucocytes are seen in large numbers, along with intra- and extracellular gram-positive cocci.

The child's throat is swabbed, the gram stain shows neutrophils and gram-positive cocci. There is no history of drug allergy. You would now treat with:

A. Erythromycin, 250 mg po qid for 10 days.
B. Tetracycline, 250 mg po qid for 10 days.
C. Penicillin G, 250 mg po qid for 4 days.
D. Cephalexin (Keflex®), 250 mg po qid for 10 days.
E. Penicillin G, 250 mg po qid for 10 days.

Answer: E. Penicillin G, 250 mg po qid for 10 days.

Penicillin is the drug of choice. Oral buffered potassium penicillin G, 250 mg three or four times daily for a **full 10 days** is adequate therapy for both children and adults[17,18] Potassium phenoxymethyl penicillin (V Cillin K®, Pen Vee K®) is equally effective[19,20]. It cannot be overemphasized that a full 10 day course is necessary to eradicate the organism and to prevent acute rheumatic fever[19] and recurrence of streptococcal infection[21]. Intramuscular administration of benzathine penicillin G (Bicillin®) 1.2 million units is more efficacious in eradicating streptococci and is the therapy of choice for a poorly compliant patient or one at high risk for acute rheumatic fever[17,18,20]. This choice of management should be reserved specifically for those patients who have a positive pharyngeal gram stain but whom you do not trust to take 10 days of oral medications, or for those who have physical findings suggesting streptococcal pharyngitis and a negative gram stain but who are not likely to return for follow-up visits.

For patients allergic to penicillin, erythromycin (E-Mycin®, Erythrocin®) 20 mg/kg/day or erythromycin estolate (Ilosone®) 20 mg/kg/day in four divided doses are both effective[17,22], however, erythromycin, lincomycin (Lincocin®) and clindamycin (Cleocin®) resistant group A streptococci have been reported[23,24]. Antibiotic susceptibility testing is necessary when using these agents. In addition to the ineffectiveness of clindamycin and lincomycin against some strains of streptococci, the potential side effect of pseudomembranous colitis may make these antibiotics a poor choice for initial therapy[25,26,27].

Tetracyclines and sulfonamides should not be used in the treatment of streptococcal pharyngitis. Many strains of Group A beta-hemolytic streptococci are resistant to tetracycline. Because tetracycline is bacteriostatic, even if the organism is sensitive these agents fail to eradicate the bacteria and prevent acute rheumatic fever[28,29]. In addition, tetracyclines should not be used in children during their growth years[30].

Cephalexin (Keflex®) is as effective as penicillin but the expense of this antimicrobial may be prohibitive to many patients, expecially when less costly penicillin or erythromycin can be used[31].

Reasons for treating patients with *Streptococcus pyogenes* pharyngitis include each of the following **except:**

A. To prevent acute rheumatic fever.
B. To shorten the clinical course of the illness.
C. To prevent the complications of parapharyngeal abscesses and suppurative cervical adenitis.
D. To reduce the spread of streptococci to other individuals.
E. To eradicate the streptococci from the pharynx.

Answer: B.

The administration of antibiotics to the patient with acute streptococcal pahryngitis has little or no effect upon the natural course of the disease[32,33]which is self-limiting and usually lasts less than five days[32]. The primary reason for treating these patients is to prevent acute rheumatic fever and its sequelae[19,32]. Acute rheumatic fever will be prevented as long as antimicrobial therapy is initiated within nine days of onset of symptoms[19].

The other choices are also valid reasons for treating this disease. A return of pharyngitis symptoms and a positive culture within 30 days of therapy is considered clinical recurrence. A positive culture alone is indicative of bacteriologic recurrence. Recurrence has largely been attributed to the patient's failure to take the full

10 day course of oral therapy[21]. Patients with either clinical or bacteriologic recurrence should be retreated[17]. Symptomatic members of the household should be cultured at the onset of the illness. If the disease recurs **all** members of the household may require culturing to determine if there is an asymptomatic carrier. Many patients may have colonization of the posterior pharynx or nasopharynx with penicillinase-producing staphylococci. It has been theorized that this enzyme may inactivate penicillin in the pharyngeal secretions so that the drug cannot kill the streptococci. If this phenomenon is suspected by the presence of staphylococci on the throat culture plates, recurrence may be managed with erythromycin or with an antistaphylococcal penicillin such as oxacillin or dicloxacillin. These will be resistant to degradation by penicillinase.

References 1. Glezen WP. Group A Streptococci mycoplasma and viruses associated with acute pharyngitis. *JAMA* 202:455-460, 1967. 2. Wiesner PJ. Clinical spectrum of pharyngeal gonococcal infections. *N Engl J Med* 288:181, 1973. 3. Ferbach D. Infectious mononucleosis. *Pediatric Clinic of North America* 19:957-968, 1972. 4. Wannamaker LW. A method for culturing beta-hemolytic streptococci from the throat. Circulation 32:1054-1058. 5. Wannamaker LW. A penicillin shot without culturing the child's throat. *JAMA* 235:913-914, 1976. 6. Breese, BB. Culturing beta-hemolytic streptococci in pediatric practice—observation after twenty years. *J Pediatr* 75:164-166, 1969. 7. Mondzac AM. Throat culture processing in the office—a warning. *JAMA* 200:1132-1133, 1967. 8. Rosenstein BJ, Markowitz M, Gordis L. Accuracy of throat cultures processed in physicians' offices. *J Pediatr* 76:606-609, 1970. 9. Battle CV, Glasgow LA. Reliability of bacteriologic identification of B-hemolytic streptococci in private offices. *Am J Dis Child* 122:134-136, 1971. 10. Brumfitt W. Treatment of acute sore throat with penicillin. *Lancet* 1:8-11, 1957. 11. Cantanzaro FJ. The role of the streptococci in the pathogenesis of acute rheumatic fever. *Am J Med* 17:749-759, 1954. 12. Weinstein L. Does antimicrobial therapy of streptococcal pharyngitis or pyoderma alter the risk of glomerular nephritis. *J Infect Dis* 124:229-231, 1971. 13. Kaplan EL. Diagnosis of streptococcal pharyngitis: differentiation of acute infections from the carrier state in symptomatic children. *J Infect Dis* 123:490-500, 1971. 14. Hedges JR. Pharyngeal gram stains in the treatment of sore throats. *JACEP* 7:229-232, 1978. 15. Crawford G, Brancato F, Holmes KK. Streptococcal pharyngitis: Diagnosis by gram stain. *Ann Intern Med* 90:293-297, 1979. 16. Honikman. Guidelines for the selective use of throat cultures in the diagnosis of streptococcal respiratory infection. *Pediatrics* 48:573-581, 1971. 17. Kaplan EL. American Heart Association Committee Report, Prevention of Rheumatic Fever. *Circulation* 55:51-54, 1977. 18. Breese BB, Disney FA. Penicillin in the treatment of streptococcal infections. A comparison of effectiveness of five different oral and one parental form. *N Engl J Med* 259:57-61, 1958. 19. Denny FW. Prevention of rheumatic fever: treatment of the preceding streptococcal infection. *JAMA* 143:151-153, 1950. 20. Stillerman M. Streptococcal pharyngitis therapy. *Amer J Dis Child* 123:457-461, 1972. 21. Green JL. Recurrence rate of streptococcal pharyngitis related to oral penicillin. *J Pediatrics* 75:292-294, 1969. 22. Derrick W. Erythromycin in streptococcal pharyngitis. *Am J Dis Child* 130:175-178, 1976. 23. Drapkin MS. Bacteremic infections due to clindamycin-resistant streptococci. *JAMA* 236:263-265, 1976. 24. Sanders E. Group A beta-hemolytic streptococci resistant to Erythromycin. *N Engl J Med* 278:538-540, 1968. 25. Brenner EJ. Pseudomembranous colitis as a sequelae to oral lincomycin. *Am J Gastroenteral* 54:55-58, 1970. 26. Scott AJ. Lincomycin as a cause of pseudomembranous colitis. *Lancet* 2:1232-1234, 1973. 27. Tedesco F. Clindamycin associated colitis. *Ann Intern Med* 81:429-433, 1974. 28. Breese BB, Disney FA. Beta-hemolytic streptococcal infection in children: comparison of therapeutic effectiveness of potassium penicillin G, tetracycline phosphate complex and dimethyl chlortetracycline. *Am J Dis Child* 107:232-239, 1964. 29. Catanzaro FJ. Symposium on rheumatic fever and rheumatic heart disease: the role of streptococci in the pathogenesis of rheumatic fever. *Am J Med* 17:749-756, 1954. 30. Baker KL. Tetracycline-induced tooth changes. *Med J Aust* 2:301-304, 1975. 31. Disney FA, Breese, BB. Cephalexin and penicillin therapy of childhood beta-hemolytic streptococcal infections. *Postgraduate Medicine Journal* 47 (Feb Supplement) 47-51, 1971. 32. Brink WR, Rammelkamp CH Jr, Denny FW, et al. Effect of penicillin and aureomycin on the natural course of streptococcal tonsilitis and pharyngitis. *Am J Med* 10:300-308, 1951. 33. Merenstein JH, Rogers KD. Streptococcal pharyngitis: early treatment and management by nurse practitioners. *JAMA* 227:1278-1282, 1974.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Information. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

For a preliminary rate quotation, detach the enclosed card and return to us.

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

Spontaneous Gastroduodenal Fistula

Tsung-Yao Huang, M.D. and Gary H. Peterson, M.D.

Two cases of double pylorus resulting in spontaneous pyloroplasty are described. Neither surgical intervention nor major medical treatment was necessary. The hypothesis of the pathogenesis and radiological variation of gastroduodenal fistula (GDF) are reviewed. Double pylorus is a form of gastroduodenal fistula consisting of a short accessory canal extending from the distal stomach to the duodenum[5]. Rokitansky (1861) postulated that gastroduodenal fistula might result from two ulcers eroding toward one another from duodenum and stomach. The fistula may improve emptying of the stomach resulting in a "Spontaneous Pyloroplasty"[12]. This paper presents two patients with peripyloric gastroduodenal fistula.

Case Report

Case I: On July 10, 1978, a 41-year-old male presented to the emergency room complaining of a sudden recurrence of abdominal pain. He had a history of chronic epigastric pain and alcohol abuse. Chest and abdominal films were normal. Routine laboratory studies: Hemoglobin 12 gm, Hematocrit 35.3%, RBC 4.5 million, WBC normal. Urine and stool examinations were negative. On physical examination the heart and lungs were normal. The abdomen was soft, and non tender with no organomegaly. Upper gastrointestinal series revealed a fistula between the gastric antrum and the duodenal bulb (Fig. 1). The patient was referred to the gastroenterology section for endoscopy. His physician informed us that at that time, the patient had no subjective or objective symptoms and refused endoscopy. We lost contact with the patient.

Case II: A 49-year-old female complained of occasional burning epigastric pain and post-prandial vomiting for two days. Her pain was exaggerated by lying flat. She had these symptoms for many years and had been admitted with the persumptive diagnosis of reflux esophagitis. No hematemesis was present. Chest and abdominal films were negative. Oral Cholecystogram was normal. On Aug. 22, 1978, an upper gastrointestinal examination showed the presence of marked edema in the region of the pyloric channel with a peripyloric gastroduodenal fistula. The duodenal bulb itself was considered normal (Fig. 2). The esophagus was normal and there was no gastroesophageal reflux. She was treated with an antiacid regime. Because of the patient's poor cooperation, an unsuccessful endoscopic examination was performed. She was followed in the Out-Patient Clinic one month later. No surgical treatment was recommended because there were neither subjective nor objective symptoms at that time.

Discussion

The formation of a non-surgical extrapyloric connection between the antrum of the stomach and the duodenal bulb has been described. Expressions such as "double pylorus,"[1,2,3,6,9,12] "Tunnel ulcer[5]", "pyloric septum[4]", "pyloric duplication[7]" and "peripyloric gastroduodenal fistula[8,10]" probably described the same entity. The most appropriate anatomical and pathophysiological description is peripyloric gastroduodenal fistula.

Some investigators postulate that the duplication of the gastroduodenal connection is a congenital phenomenon[3,7,11,13] *i.e.* Smith and Tuttle (1969) described gastroduodenal (pyloric) band, Christien et al (1971) reported congenital pyloric septum, Fruhmorgen et al (1972) suggested duplication of the pylorus and Wilberg S (1975) mentioned a double pylorus with an antral diaphragm. The majority of opinion in the literature states that the double antroduodenal canal developes after a history of pre-pyloric ulcerative disease. The development of the second canal (fistula formation) is a result of penetration of the prepyloric ulcer into the duodenum or of two ulcers (duodenal and prepyloric ulcer) eroding toward each other[1,4,5,6,9,10,12]. Therefore, the abnormality is clearly considered to be acquired.

The penetration of ulcerative disease with resulting gastroduodenal fistula formation (GDF) may be classified into three types. The most common is "Type I" in

From the Department of Diagnostic Radiology, University of Louisville School of Medicine, Louisville, Ky.



FIG. 1: Case I: Upper gastrointestinal series showing a fistula between the antrum and the duodenal bulb.

which the fistula formation developes between the lesser curvature of the antrum or the body of the stomach and the duodenal bulb. The "Type II" is a fistula formed between the posterior wall of the stomach and the third or fourth portion of the duodenum. "Type III" is a fistula connecting the pylorus to the duodenum, forming a pyloric septum. Our two cases were felt to be of the "Type I" variety.

Our evidence and that of other investigators indicates that clinical relief can probably be related to the establishment of the gastroduodenal fistula in the majority of patients. The fistula may improve emptying of the stomach resulting in spontaneous recovery from ulcerative disease. In these patients, despite the marked radiologic changes, the symptoms diminished and neither surgical intervention nor major medical treatment was necessary.



FIG. 2: Case II. Upper gastrointestinal series showing the presence of marked edema at the pyloric channel with finding of a peripyloric gastroduodenal fistula.

References 1. Bender MD, Solla DJ: Acquired double pylorus: a case report. *Radiology* 116: 325-326 Aug. 1975. 2. Bennike S, Hegedus V: The double pylorus. *Br J Radiology* 49: 92-94 Jan. 1976. 3. Christen G et al: Pylore double. *Sem Hop Paris* 47:1485-1488 May 1971. 4. Drapkin RL, Otsuka AL, Castellanos HL et al: Acquisition of a pyloric septum or pyloric duodenal fistula. *Gastroenterology* 66: 1234-1236, June 1974. 5. Engle RB: Tunnel ulcer with double pyloric canal. *Radiology* 116:323-324 Aug. 1975. 6. Farack UM, Goresky CA, Jabbari M et al: Double pylorus: a hypothesis concerning its pathogenesis. *Gastroenterology* 66:596-600 Apr. 1974. 7. Fruhmorgen P et al: Duplication of the pylorus. Endoscopy 4:234-237, Nov. 1972. 8. Gould LV: Spontenous gastro-duodenal fistula. Br. J. Radiology 34: 619-621 Oct. 1961. 9. Hansen OH, Kronborg O, Pederson T: The double pylorus. Scand J. Gastroenterol 7:695-696 Mar. 1972. 10. Rappoport AS: Gastroduodenal fistulae and double pyloric canal. *Gastrointestinal Radiology* 2:341-346 1978. 11. Smith VM, Tuttle KW: Gastroduodenal (Pyloric) band. *Gastroenterology* 56:331-336 Feb. 1969. 12. Viktor Hegedus et al: The natural history of the double pylorus. *Radiology* 126:29-34 Jan. 1978. 13. Wilberg S: Double pylorus with antral diaphragm. *Endoscopy* 7:44-45 Feb. 1975.

Hypereosinophilic Syndrome: A Review of Clinical Manifestations and Therapy

Eosinophilia of unknown etiology has been a diagnostic and semantic dilemma for years. Alexander[1], in 1924, stated that eosinophilia of unknown origin represented a leukemic state and not a new clinical entity. Hardy and Anderson[2] after reviewing the literature up to 1968 and adding three additional cases, concluded that eosinophilia of unknown etiology is a sign and symptom complex consisting of: fever, weight loss, eosinophilia, cardiopulmonary manifestations and hepatosplenomegaly. The histologic appearance of organ involvement was one of infiltration of mature eosinophils without distortion of normal architecture. The organs most frequently involved were liver, spleen and bone marrow. There was no evidence of blast conversion nor hypoplasia of normal marrow elements (resultant anemia or thrombocytopenia). The term hypereosinophilia syndrome was thus coined.

The following year Benvenisti, et al[3], described five additional cases of eosinophilic leukemia and their review of the literature. Forty-eight cases were reviewed. Anemia was noted in 32 and thrombocytopenia was noted in 22. The histologic appearance of organs studied at the time of autopsy showed a cellular infiltrate with distortion of the normal architecture similar to that seen in chronic myelogenous leukemia. Twenty-nine bone marrow aspirates were reviewed: twenty of which showed marked eosinophilia and 19 had evidence of increase in blast forms. Of the three patients who had bone marrow biopsies all three showed extensive fibrosis.

Besides the bone marrow involvement the organ systems most commonly involved were cardiovascular, pulmonary and central nervous system. The cardiac lesions were an eosinophilic infiltrate of the myocardium associated with necrosis and inflammation (18 cases), mural thrombi 14 cases. The pulmonary lesion showed eosinophilic infiltrates associated with parenchymal necrosis and thrombosis of small vessels. In 10 of 12 cases where the central nervous system was examined, an eosinophilic infiltrate and tumor formation was noted in the leptomeninges, cerebral hemispheres and cranial nerves. In addition to the central nervous system tumor formation, chloromas and/or myeloblastomas were reported in eight cases. The authors concluded that the hypereosinophilia was a distinct clinical entity belonging to the category of the myeloproliferative syndromes.

Chusid, et al[4] in 1975 reviewed the literature on eosinophilic leukemia and hypereosinophilic syndrome. The criteria for admission into their study included the following: 1. persistent eosinophilia of 1500/mm ^{3} for six months or longer, 2. a lack of evidence for parasites, fungus or other known causes of eosinophilia, 3. presumptive signs and symptoms or organ involvement included hepatosplenomegaly, organic heart disease, congestive heart failure, diffuse or focal neurologic abnormalities, pulmonary fibrosis, fever, weight loss and anemia. Fifty-seven patients fit the above criteria. Their age ranged from 5-80 years with the increase incidence in the 40-50 age range. There was a male predominance in 91% of the cases with a 78% white, 18% black and 4% oriental. Signs and symptoms most often seen were weight loss, anorexia, fatigue, fever with night sweats, persistent non-productive cough with chest pain, various neurological abnormalities, pleuretic chest pain and congestive heart failure. Table I depicts these cases.

TABLE I
PRESENTING SIGN AND SYMPTOM IN 57 PATIENTS

System	%
Cardiovascular	84
Hepatosplenomegaly	82
Fever	46
Pulmonary	40
Weight loss	40
Central Nervous System	30
Lymphadenopathy	20

From the Veterans Administration Medical Center, Lexington, Ky. Presented at the University of Kentucky in Lexington.

Cardiovascular manifestations were congestive heart failure, peripheral edema and apparent cardiac murmurs. Pulmonary manifestations consisted of a shortness of breath, chest pain, chest x-ray evidence of pleura effusion or interstitial infiltrate. The neurologic problems consisted of coma, confusion, delusions, psychoses, slurrness of speech and hemiparesis. The cranial nerves were exceedingly spared. A bone marrow examination was done in 90% of the patients and was noted to be hypercellular with an eosinophilia ranging from 25-75% of the cells. Fibrosis was only rarely seen (noted in two cases), the blasts counts were not markedly elevated.

The average survival of these patients was slightly more than nine months with only 25% surviving greater than two years. There were some long time survivors. The majority of deaths occurred within the first month of their diagnosis. Poor prognostic signs included; a white blood count of greater than or equal to 100,000/mm^3, or the presence of myeloblasts in the peripheral blood. Only 25% of the patients with either these findings survived nine months. Treatment with ACTH, steroids and antiparasitic agents was ineffective. There was a case report that Diphenhydramine (Benedryl) was effective.

The 14 cases followed at the NIH[4] were then reviewed as a separate group. The most frequent presenting signs and symptoms were weight loss and skin rash. The organ systems most often involved were cardiovascular, cutaneous and central nervous system.

A detailed description of the hematologic characteristics seen in these patients was described. The eosinophilic morphology was that of hypersegmentation of the nucleus, minivacuoles and hypogranulation with poor staining properties of the cytoplasm. Nine of the 14 bone marrows obtained revealed a maturation disturbance with increased numbers of myeloblasts and eosinophilic promyelocytes. A chromosonal analysis was done on 13 marrows. It was normal in six while seven had evidence of aneuploidy (Philadelphia chromosonal present in two). Eight of the 14 marrows reviewed fit a leukemic picture (it is important to note that the patient who responded to steroids were the patients who did not fit a leukemic picture).

Parrillo, et al[5], reported the results of therapy in 26 patients. Five patients showed no evidence of progressive organ system dysfunction and were not given therapy. Sixteen patients where progressive organ dysfunction were treated with corticosteroids; six of these 16 had a good response and needed no further therapy. Five patients were treated with various chemotherapeutic agents which proved to be ineffective. In eight patients who were unresponsive to corticosteroid, Hydroxyurea (Hydrea) produced excellent responses in six and partial responses in two patients. The authors stated that with their treatment schedules in their 26 patients there was a marked increase in survival. A three year mortality of 4% when compared to the previous mortality of 75% at two years of historical controls.

References 1. Alexander ME: Observations on a case of splenomegaly with hyperleukocytosis. *J Lab Clin Med* 9:803, 1924. 2. Hardy WR and Anderson RE: the hypereosinophilic syndromes. *Ann Intern Med* 68:1220-1229, 1968. 3. Benvenisti DS and Ultmann JE: Eosinophilic Leukemia. Report of Five Cases and Review of Literature. *Ann Intern Med* 71:731-745, 1969. 4. Chusid MJ, Dale DC, West BC and Wolfe SM: The hypereosinophilic syndrome: analysis of fourteen cases with review of the literature. *Medicine* (Baltimore) 54:1-27, 1975. 5. Parrillo Je, Fauci AS and Wolff SM: therapy of the hypereosinophilic syndrome. *Ann Intern Med* 89:167, 1978.

PHILIP A. DESIMONE, M.D.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790.

NEW
PRODUCT
INFORMATION

clinical significance



of constipation

WILLIAM H. RORER, INC.
Fort Washington, PA 19034

Constipation acute or chronic

Constipation may be caused by conditions affecting the filling and emptying of the rectum.

Inadequate filling

Interference in propulsive contractions

Impairment of smooth muscle contractility

Obstruction of the lumen





Inadequate emptying

Interference in the stimulation of the defecation reflex

An additional complication

Self treatment—use and abuse of laxatives

Treatment of underlying disorders is critical... Relief of constipation is essential

Perdiem™...distinctive!

A unique blend of natural vegetable derivatives For comfortable and safe relief of constipation

Psyllium

- A natural source of hydraphillic calloids
- Strengthens stimulus ta defecate by increasing indigestible residue
- Helps praduce saft, hydrated, well farmed stool



Senna

- Produces mild peristaltic stimulatian
- Helps propel bulk through colan



A unique granular formulation

- Na mixing ar chewing
- Granules are placed in mouth and swallawed with full glass of beverage
- Helps break cathartic habituation
- Helps establish narmal defecatary reflexes and regular bawel rhythm

John Maerz, M.D.
Medical Director
W. H. Rarer, Inc.
Fart Washingtan, PA 19034

Dear Dr. Maerz:

Yes, I would like ta receive a supply af Perdiem™ starter samples far my patients.

Dr _____

Address _____

City _____

State _____

Zip _____

Specialty _____

SJ-312

New Perdiem™

Prescribing Information

ACTIONS: Perdiem™ with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION: Natural vegetable derivatives: A unique blend of psyllium and senna (Plantago Hydrocolloid with Cassia Pod Concentrate).

INDICATION: For relief of constipation.

PATIENT WARNING: Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal: one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours): reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN: From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

HOW SUPPLIED: Granules; 100 gram (3.5 oz.) and 250 gram (8.8 oz.) canisters.



Made in West Germany

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 29 Ft. Washington, PA.

POSTAGE WILL BE PAID BY ADDRESSEE

William H. Rorer, Inc.
500 Virginia Drive
Ft. Washington, PA. 19034

Attn: Marketing Services

ROHRER

WILLIAM H. RORER, INC
Fort Washington, PA 19034

Doctors and Depression

We are always learning more about this illness of depression. As with so many conditions, each new insight raises new questions even as it opens new modlities. Certainly heredity plays a role in some depressions. So does the wear of human experience. Ingested substances can be depressing. Still, most depressions are idiopathic in the light of present knowledge.

Some people, some personalities, seem more susceptible to depression. A stereotype that has some accuracy in experience is that of the meticulous, conscientious one who works hard to obtain order and control in life and obligations. These qualities, of course, describe many physicians and are elements that are often associated with the very best patient care.

For most of us, back in adolescence, the prospect of a medical career had a glow of humanitarian service about it and was especially attractive since it combined the likelihood of a comfortble income. Most of us still choose private practice and it gives a personal freedom that escapes many other citizens. It sounds secure and well-ordered and pleasant and satisfying. And so it is.

But a great many things within these practices can turn even the adequately adjusted physician toward depression. We understand the pain of a therapeutic reverse in one of our patients. Heavy schedules, especially if we lose control of them, can be a source of serious difficulty. Failures in competition (we're more competitive than we like to admit) can dishearten. Interference with our practice patterns, the loss of a part of our independence to the politically minded or to a bureaucracy can weigh heavily on the soul. A malpractice suit can take all of our joy.

In our personal lives, the human experience itself can include some depressing elements. Failure in relationships with a loss of love or financial reverses with a loss of security can lead toward depression. A sudden awareness of our advancing years, this calling for an inventory of our direction and purpose, can shake all our certitudes. Even a small myocardial infarction can change life plans. Ungrateful offspring can be "sharper than a serpent's tooth." Selfishness and simple foolishness will likely touch us all.

At some point in our lives a lot of us are going to develop a depression. We may not call it that. We may even deny it. Unrecognized depression is very common. We may blame ourselves or others; we may seek a less threatening explanation, or we could make ourselves even busier in an all-out effort to pretend it's not so. Some will throw life patterns aside and risk social turmoil.

One of the more malignant things we may do is to turn to controlled substancs or to alcohol, which may then become controlling instead of controlled. Although figures appear unavailable it seems likely that such chemicals are a major element in many of these illnesses in physicians who kill themselves.

Medical practice has an increasing interdependency. Our lives are becoming even more intertwined. We generally have ample opportunity to observe in ourselves and in each other these signs of depression:

1. A change in mood to dysphoria
2. Endogenous signs, such as insomnia
3. Difficulties in normal work performance
4. All of this for at least two weeks

When these are present then our concern for each other must be no less than it would be in the case of attack by any other incapacitating and life-threatening illness.

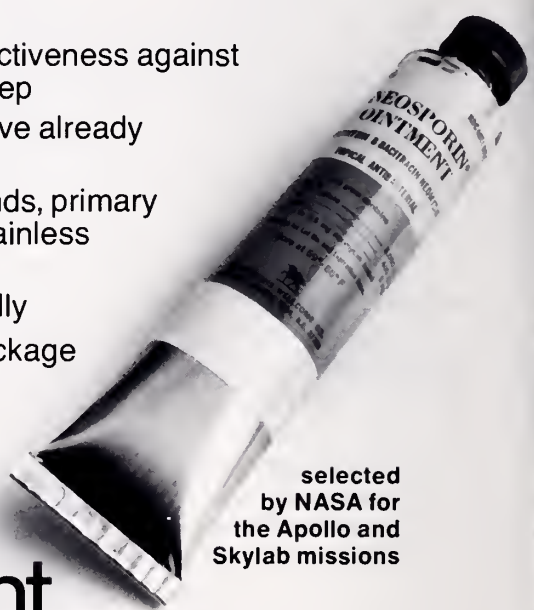
A faltering comrade may need to be treated with medicines or with psychotherapy, more likely with both. The psychotherapy may not even need to be very formal. Sometimes a genuine concern expressed with candor and consistency is a great help. Problems of quality of patient care must be addressed directly. Substance abuse must not be ignored or explained away. With depressive illness we really must try to be our brother's keeper because we may be the only keeper he has.

DLS

IT'S HIGHLY RECOMMENDED... AND FOR GOOD REASONS



1. provides broad-spectrum, overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep
2. helps prevent topical infections, and treats those that have already started
3. it's good medicine for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses; and it's painless and cosmetically pleasing
4. contains three antibiotics that are rarely used systemically
5. you can recommend it in any of the three convenient package sizes: 1 oz tube, ½ oz tube, or the versatile, single-use foil packet



selected by NASA for the Apollo and Skylab missions

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs. in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

SPECIAL ARTICLE

Beyond The Ivory Tower: Pediatric Postgraduate Training at U of L

John P. Howard, M.D., Louisville

Thirty-one, second and third year, pediatric residents have been involved in preceptor programs outside their training institution in the Commonwealth of Kentucky during the past four years. Indications seem to imply that these preceptorships in non-metropolitan areas are not only individually satisfying but also have influenced some of the resident physicians to remain within Kentucky and particularly outside the metropolitan areas.

During the last few decades there has been a dramatic forward leap in the care of the ill newborn, particularly the premature, with the ascendance of the Neonatal-Perinatologist (1975) and the intensive care neonatal unit. Further, there has been a proliferation of subspecialists in Pediatrics: *i.e.,* cardiologists (1961), hematology-oncologists (1974), nephrologists (1974), and endocrinologists (1978). Children's hospitals have become the sites for these subspecialists as well as their expanding programs; so that these institutions have become what is commonly referred to as tertiary facilities: *i.e.,* centers for the care of infants and children with unusual disorders or complicated treatment regimens for such disorders. However, these hospitals also serve as primary sites for the training of resident physicians in the general specialty of pediatrics; by 1972, university affiliated programs in the United States represented 94.2% of all positions offered in pediatrics.[1] Therefore, without some leavening agent, the new pediatrician, who at present must complete three years of postgraduate education, would be dissociated from the art and practice of their specialty in the general community.

For the past decade, the Department of Pediatrics at the School of Medicine of the University of Louisville has been assisted not only by local pediatricians in private practice but also by those throughout the Commonwealth of Kentucky for the educational experience of medical students and resident physicians. In the past four years, various programs funded by the Commonwealth have been implemented to further organize these experiences for students and resident physicians. The goals of these programs have been to expand the educational experiences and also to project the values and attractions of primary care practice within Kentucky's borders, particularly outside the metropolitan areas of Lexington and Louisville.

As the narrowing of the sphere of the hospitalized patient population within a children's hospital has occurred, the need for experience with the common problems of pediatrics, *e.g.,* parental counselling, normal physical and psychosocial growth and development, upper respiratory illnesses, etc., has become more important. Although outpatient experience has been achieved within a few general pediatric clinics, continuity of care for a stable patient population has created problems for some institutions. At the University of Louisville in the Department of Pediatrics, such a facility is best exemplified by the federally supported Children and Youth Project; but, even there, space and patient population are restricted both physically and by funding guidelines. Therefore, the assistance of practicing pediatricians has been invaluable for this type of graduate medical education. Accordingly, it is now a requirement for all resident physicians within this department to spend some part of their program with a preceptor located in one of the seven Area Health Education System regions of the Commonwealth.

In general this experience has been well received by both the house officers as well as the preceptors. From 1977-1979, 19 pediatric residents participated in this program; none have as yet completed their training program. However, from 1975-1977, 12 house officers voluntarily participated; of these, nine have remained in Kentucky, although four of the 12 were originally from outside the Commonwealth.

From the Section of Ambulatory Care, Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky.

One of the most consistent findings has been the pleasure that the resident physicians have had in experiencing a private practice under the supervision of their preceptors. Indeed, 11 of those in the program from 1975-1977 are currently in a pediatric practice situation rather than an area of subspecialization.

This is an encouraging sign for taxpayers who have financially provided for these types of experiences; it is also encouraging to those parents who are seeking the services of a pediatrician for the care of their children. From the standpoint of sponsored programs for resident physicians, the funds have provided for additional house officers and salary supplementation for faculty as well as a partial dislocation allowance for the house officer while they are at the respective preceptor sites.

A major study was done assessing the contributing influences upon house officers as to the final location for their practices; it was noted that the location of their training program was one such factor responsible for this choice;[2] however, there appear to be other more complex factors involved.[3] Concurrently, the present efforts with involvement of our resident physicians in preceptor programs is aimed to utilize these findings to expand the physician base of primary care practitioners particularly in the Commonwealth's underserved areas. Indeed, five participants in the 1975-1977 program have settled in communities of less than 40,000 persons.

Although these programs are assuredly not the only factor abetting the decision of resident physicians in the final selection of their practice location, it would appear that they are one of the influencing factors in their determination.

References 1. Lerner HJ, Manpower Issues and Voluntary Regulation in the Medical Specialty System. *Prodist:* New York, 1974. 2. Weiskotten HG, Wiggins, WS, Altenderfer ME, Gooch M, and Tipner A, Trends in Medical Practice: An Analysis of the Distribution and Characteristics of Medical College Graduates, 1915-1950. *J Med Educ* 35:1071-1121, 1960. 3. Held PJ, The Migration of the 1955-1965 Graduates of American Medical Schools. Univ. California Berkeley, 1973

Quinamm™

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

Merrell

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®



8-3305 (Y371A)



Quinamm™

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres* has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

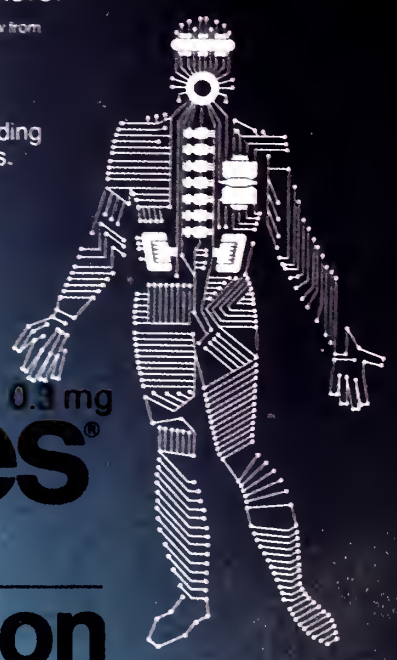
The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets

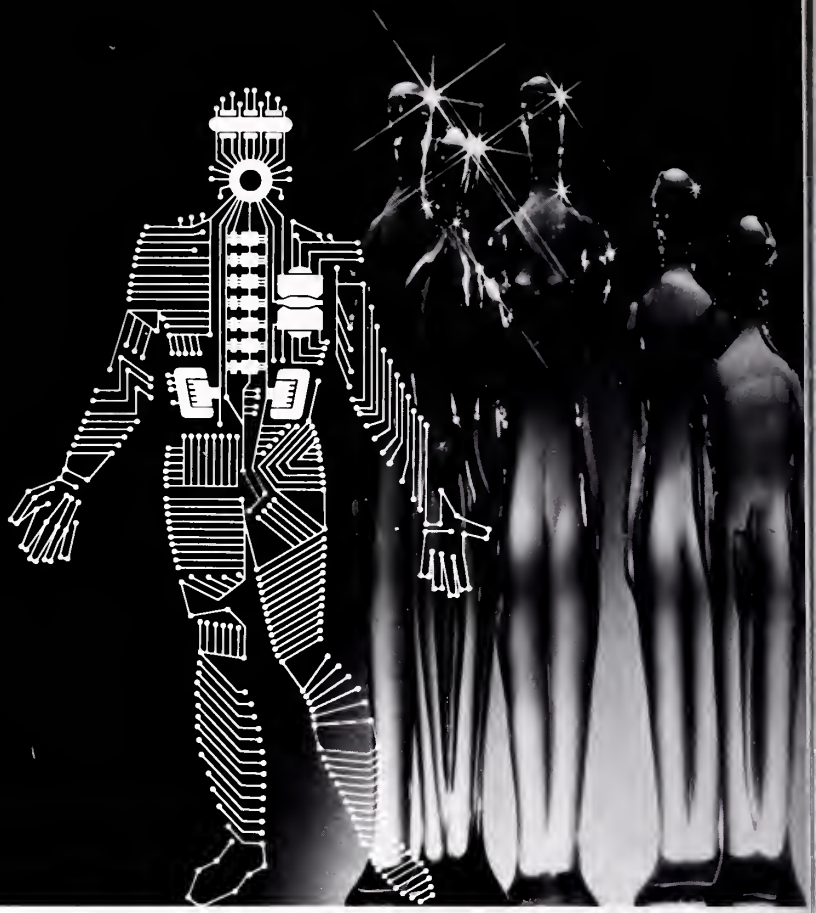


Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension

The Alpha Advantage:

It's for all kinds of hypertensives



Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at brea fast and 0.1 mg at bedtime. Some patients may bene from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 mor longer.

Adverse Reactions: The most common reactions are dry mouth, drowsines sedation. Constipation, dizziness, headache, and fatigue have been rep Generally these effects tend to diminish with continued therapy. The foll reactions have been associated with the drug, some of them rarely. (In instances an exact causal relationship has not been established.) These in Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormali liver function tests; one report of possible drug-induced hepatitis without ic and hyperbilirubinemia in a patient receiving clonidine hydrochloride, thalidone and papaverine hydrochloride. Weight gain, transient elevation of glucose, or serum creatine phosphokinase: congestive heart failure, Rayn phenomenon; vivid dreams or nightmares, insomnia, other behavioral cha nervousness, restlessness, anxiety and mental depression. Also rash gioneurotic edema, hives, urticaria, thinning of the hair, pruritus not asso with a rash, impotence, urinary retention, increased sensitivity to alcohol, dry itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecom weakly positive Coombs' test, asymptomatic electrocardiographic abnorm manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished sent reflexes and vomiting followed the accidental ingestion of Catapres (clor hydrochloride) by several children from 19 months to 5 years of age. G lavage and administration of an analeptic and vasopressor led to comple covery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-m intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0. (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
Under license from Boehringer Ingelheim GmbH

Boehringer Ingelheim
Boehringer Ingelheim L
Ridgefield, CT 06877

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal.* Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

I am writing this to register my objection to the anti-abortion editorial in the latest issue of The Journal of the Kentucky Medical Association. (December 1979) I do not think a medical journal is the proper forum for this kind of writing. An opinion page giving differing opinions on this subject would be more appropriate rather than an emotional, typical, anti-abortion editorial.

John R. Brewer, M.D.,
FAAP Trover Clinic
Madisonville, Ky. 42431

To the Editor:

I would like to compliment Doctor Heavern on his editorial "The Right to Life—Still Alive and Well." I was most impressed by his closing remarks which I rephrased to apply to myself personally. Am I a part of the moral majority? Should I be? Can I postpone my decision any longer?

As for me, I know in my heart that I will stand before my Creator and give an account, not only for what I have done, but also for what I have left undone. I can not postpone my decision any longer.

Frank G. Simon, M.D.
Chairman, Jefferson County
Physicians for Life Committee
P.O. Box 6689
Louisville, Ky. 40207

To the Editor:

Medicine and all of its branches are under attack, not only from bureaucrats, but also from para-medical and non-medical technicians who seek to expand their practices through legislation rather than training and demonstrated clinical qualifications. The result is inroads into the practice of medicine by non-physicians.

Ophthalmology has recently been a target for this sort of effort, which may well serve as a precedent for invasion of the other branches of medicine by allied groups.

The strategy by which non-medical groups hope to obtain medical status was clearly revealed when, in 1978, optometry launched a multi-million dollar nationwide advertising campaign. Some of those ads stated that, "An examination by an optometrist is also a good place to begin guarding your family's total health care." They concluded this effort to bypass the general medical practitioner, the internist, and the pediatrician as well as the ophthalmologist by proclaiming, "Your Family Doctor of Optometry. The person to see. And keep seeing."

Optometrists have succeeded in obtaining by legislative fiat the right to use so-called diagnostic drugs in two states. Recently legislation was proposed in Arizona which would have permitted these same non-medical practitioners to perform surgery in the eye and its adnexa.

The decline of ophthalmic standards and the demise of ophthalmology as a recognized medical specialty would establish a precedent fraught with grave danger for all of medicine. It would provide both the legal sanctification and popular momentum that has so long been awaited by audiologists, nurse practitioners, psychologists and a host of other allied practitioners and non-medical technicians who seek to obtain by decree what they have failed to obtain by degree. This is emphasized by recent suits against the AMA which have alleged that physicians have restrained the trade of non-medical practitioners by controlling public access to them and other emerging health care groups.

Ophthalmology is taking its case to the people, in the interest of protecting the public health. Michigan ophthalmologists sponsored an advertisement warning of dangers that only a qualified eye physician can detect and treat which appeared in several national magazines. The ophthalmologists of this state are prepared

to do as much and invite their professional colleagues to join them in a united effort to inform the public of these dangers to their health.

If you have any suggestions, or wish to discuss this matter, the following physicians will welcome your call or letter:

Gerald Berman M.D. (502) 583-4859
Suite 314 Medical Towers North
Louisville, Ky. 40202
John Gamel M.D. (502) 588-5466

STATEMENT OF OWNERSHIP MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

1. Title of Publication: THE JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION.
2. Date of filing: October 1, 1979.
3. Frequency of issue: Monthly.
4. Location of known office of publication: 3532 Ephraim McDowell Drive, Louisville, Jefferson County, Kentucky 40205.
5. Location of the headquarters or general offices of the publishers: 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
6. Names and addresses of publisher, editor, and managing editor: Publisher—Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. Editor—A. Evan Overstreet, M.D., 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. Managing Editor—Joseph A. Witherington, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
7. Owner: Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: Citizens Fidelity Bank and Trust Company, P.O. Box 1140, Louisville, Kentucky 40201.
10. Nonprofit organizations authorized to mail at special rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months.
11. Extent and nature of circulation:

	Average no. copies each issue during preceeding 12 months	Single issue Published nearest to filing date
A. Total no. copies printed:	3827	3800
B. Paid circulation:		
1. Sales through dealers and carriers, street vendors and counter sales:	0	0
2. Mail subscriptions:	3583	3576
C. Total paid circulation:	3583	3576
D. Free distribution by mail, carrier or other means.		
1. Samples, complimentary, and other free copies.	176	165
E. Total distribution:	3759	3741
F. Office use left-over, unaccounted, spoiled after printing:	68	59
G. Total:	3827	3800

PERSONAL SERVICE

is the Reason so Many Doctors Lease from Us!

All Are Leasing Specialists:

Bill Foster — ACCT. EXEC.
Ben Gabbard — ACCT. EXI
Lee Balz — ACCT. EXEC.
Ed Harvey — ACCT. EXI
Ted DeFosset — GEN. MGR.
Jim Powell — ACCT. EXI

General Leasing CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

Leasing Cars—All makes & models, Medical, Surgical & Laboratory Equipment and Office Furnishings.

The Truth About Senility—And How To Avoid It

Lawrence Galton, 224 pages, $9.95, J. B. Lippincott Company, Copyright 1979

This provocative title invites the reader into an interesting, if not somewhat proselytizing book. Such an inflammatory word as senility strikes fear into maturing people, especially with the continuing extension of life expectancy. To some who have lived with the inexorable and tragic demise of a dear one's mind, the senile condition is only too well known. But to many others, the term senility encompasses any deterioration in one's faculties with advancing age, lumping all cases regardless of etiology.

Mr. Galton attacks this fallacy directly and with this effort makes his book worth reading especially for the medically naive. The first half of the book outlines the various causes of the senile condition. Clinical cases are mingled to whet the readers appetite for a situation with which they might identify. Certainly this half of the text is well done, easily readible, factual and devoid of sensationalism.

However the second part of the book—as the title emphasizes— tackles the prophylaxis and treatment of these disorders. In all fairness, this therapeutic problem is complex and fraught with misinformation. At times the book tends to verify by pronouncement essentially empirical information.

The last chapters sound like an end of a political rainbow. Despite the weakness of the latter part of the book, this pleasant, informative book can be recommended to patients and students before their bias or fears incapacitate them.

STEPHEN Z. SMITH, M.D.
Louisville, Kentucky

★
Specialized Service
IN
PROFESSIONAL LIABILITY INSURANCE
is a high mark of distinction

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greeno, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220
LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

Plan To Attend **THE TWENTY-SIXTH ANNU**

COMMONWEALTH CONVENTION CENTER — LOUISV

Sponsc

THE HEART ASSOCIATION OF LOUISVILLE AND JEFFERSON COUNTY, INC.

THE JEFFERSON COUNTY, KENTUCKY ACADEMY OF FAMILY PHYSICIANS

JEROME P. L

MARCH 19, 1980	MORNING SESSION
8:15- 8:50 a.m.	REGISTRATION
9:00- 9:40 a.m.	"Clinical Pharmacology of Digitalis" James E. Doherty, M.D. Professor of Medicine and Pharmacology, University of Arkansas for Medical Sciences, Little Rock, Arkansas
9:45-10:25 a.m.	"Recognition and Management of Digitalis Intoxication" James E. Doherty, M.D.
10:25-10:45 a.m.	COFFEEBREAK and EXHIBITS
10:45-11:25 a.m.	"Comparison of M-Mode and Cross Sectional Echocardiography" Harvey Feigenbaum, M.D. Professor of Medicine, Department of Medicine, Indiana University, Indianapolis, Indiana
11:30-12:30	"Role of Echocardiography in Coronary Artery Disease" Harvey Feigenbaum, M.D.
12:30- 2:00 p.m.	LUNCH and EXHIBITS
AFTERNOON SESSION	
2:00- 3:00 p.m.	BERNARD D. ROSENBLUM MEMORIAL LECTURE "The extent of our Coronary Artery Disease and what to do about it" William C. Roberts, M.D. N H L B I - N I H Bethesda, Maryland
3:10- 3:50 p.m.	"Approach to the Management of the Higher Risk Patient with Ischemic Heart Disease" Richard Conti, M.D. Professor of Medicine, Chief, Division of Cardiology, University of Florida, Gainesville, Florida
3:55- 4:35 p.m.	"Coronary Artery Spasm: Role in the Pathophysiology of Ischemic Heart Disease" Richard Conti, M.D.

As an organization accredited for continuing medical education, the University of Louisville Sch
tivity as meeting the criteria for 12 credit hours in Category 1 of the Physician's Recognition Awa
ily Physicians.

REGISTRATION: Physicians $35 pre-registration; $40 d

For additional information: Please contact The Heart Association of Louisville & Jefferson Cour

SYMPOSIUM ON CARDIOVASCULAR DISEASES

ENTUCKY — MARCH 19-20, 1980 (Eastern Standard Time)

y
HE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

HE COUNCIL ON CLINICAL CARDIOLOGY, AMERICAN HEART ASSOCIATION

.D., Chairman

MARCH 20, 1980	MORNING SESSION
8:15- 8:50 a.m.	REGISTRATION
9:00- 9:40 a.m.	"Modern Treatment of Congestive Heart Failure" Noble O. Fowler, M.D. Professor of Medicine, Director, Division of Cardiology, University of Cincinnati Medical Center, Cincinnati, Ohio
9:45-10:25 a.m.	"How to approach Cardiac Arrhythmias" Edward K. Chung, M.D. Professor of Medicine, Director of The Heart Station, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania
10:25-10:45 a.m.	COFFEEBREAK and EXHIBITS
10:45-11:25 a.m.	"Acute Pericarditis" Noble O. Fowler, M.D.
11:30-12:30	"Sudden Death" Edward K. Chung, M.D.
12:30- 2:00 p.m.	LUNCH and EXHIBITS
AFTERNOON SESSION 2:00- 2:40 p.m.	"Left Ventricular Outflow Obstruction" James V. Talano, M.D. Associate Professor of Medicine, Chief, Cardiac Graphics Laboratory, Department of Medicine, Northwestern University, Chicago, Illinois
2:45- 3:25 p.m.	"Clinical Significance of Mitral Valve Prolapse" James V. Talano, M.D.
3:30- 4:15 p.m.	"Nuclear Cardiology, State of the Art" Ellis Samols, M.D. Professor of Medicine, Chief, Division of Endocrinology, Metabolism and Radionuclide Studies, University of Louisville School of Medicine, Louisville, Kentucky

of Medicine and the American Heart Association, designates this continuing medical education ac-
of the American Medical Association; acceptable for 12 hours by the American Academy of Fam-

registration; Nurses $10; Medical Students and House Staff — no charge.

Inc., 207 Speed Building, Louisville, Kentucky 40202, (502-587-8641).

Application for Scientific Exhibits

1980 Annual Meeting — **Kentucky Medical Association**

Ramada Inn/Bluegrass Convention Center — **Louisville, Kentucky** — **September 23, 24, 25**

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before July 1, 1980.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category 4 credit.

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____

   Address _____

   Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
   (The draped booth has 4′ side walls. This footage should not be included in backwall footage required.)
   SHELF DESIRED? _____ (Shelf is 2′ deep × width of backwall footage)
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____
7. Has this exhibit been displayed before? If so, when & where? _____
8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

_____
Signature of Applicant

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

- **KMA provides, without cost to the exhibitor, simple shelves, bracket lights and a title sign.**
- **Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 704 West Main Street, Louisville, Kentucky 40202**
- **Transportation and erection costs are the responsibility of the exhibitor.**
- **Exhibit must be attended during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.**
- **Equipment which will create noise should not be used during the general sessions and, at other times, should be controlled by head or earphones or a muffling device.**

AFTER ALL THOSE YEARS OF HARD WORK, SOMEONE FINALLY HANDS IT TO YOU.



In becoming financially successful, you've also become a prime target for malpractice suits.

And because even a frivolous malpractice threat can cause enough pressure to affect you at work, you may want to contact Insurance Corporation of America.

There are several steps we take, that other companies don't take, to relieve your worries and defend your reputation.

First, your initial phone conversation with ICA about a claim is with one of our licensed attorneys, seasoned in handling professional liability claims.

Soon after your call, we're discussing the claim face-to-face with you.

Because we act promptly on even a suspicion of a claim, we're able to end many malpractice threats before they become formal suits.

And if a claim is formally lodged against you, we'll fight until you get a favorable judgment or until all remedies by appeal or other proceedings are exhausted.

What's more, we never recommend that you settle just because it could be less costly than fighting.

Why this strong commitment to defending you?

Well, in addition to being operated by attorneys, our medical liability division is founded by an attorney who is also a physician.

So we're not only highly professional. We're highly motivated.

And we hope that motivates you to contact us soon.

ICA

INSURANCE CORPORATION OF AMERICA
ICA Building, 2205 Montrose Blvd., Houston, Texas 77006, Phone 713/526-4863
A.XV Reinsurance Protection Provided.

V-Cillin K®

penicillin V potassium

is the most widely prescribed brand of oral penicillin



Tablets
125, 250, and 500 mg*
Oral Solution
125 and 250 mg*/5 ml

V-Cillin K®
penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin. [102175]

***Equivalent to penicillin V.**

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana 46206

900416

Practice Management Workshop set for April 22-24

The Kentucky Medical Association in conjunction with the AMA's Department of Practice Management, has scheduled three different workshops between April 22-24, 1980 at the Executive West Hotel, Louisville.

"Starting Your Practice" is a two-day program designed for young physicians planning to enter private practice and for those who have been in practice for less than one year. The program will be held April 22-23 and will offer a varied program featuring informal presentations of useful information, particular job procedures and practical problems of establishing a practice. Subjects include paper work, patient management and public relations, personnel, physical characteristics of a medical office and legal problems. The program is a sell-out each year, and has been viewed by many who have attended to be one of the most beneficial and important programs they have ever taken.

On April 24, there will be workshops for office managers and medical assistants. The office manager workshop, "Team Building: A Better Way to Supervise," will discuss employe hiring, motivation, job performance appraisal, and other office procedure techniques.

The office assistants workshop will be divided into two sections. The morning session will deal with "You the Telephone Manager," and the afternoon session will deal with "Medical Collection Management." In the morning session the participants will learn how to utilize the telephone and the information obtained from the conversations between patients and how to avoid medical-legal conflicts. Practical demonstrations and role playing will be part of the curriculum. The afternoon session will center around how the office personnel may assist the physician in collections by utilizing time tables, correspondence, and insuring that the practice undertaken meets the criteria of all legal-ethical considerations. The American Association of Medical Assistants has approved 1.0 (CEU) credits for this program.

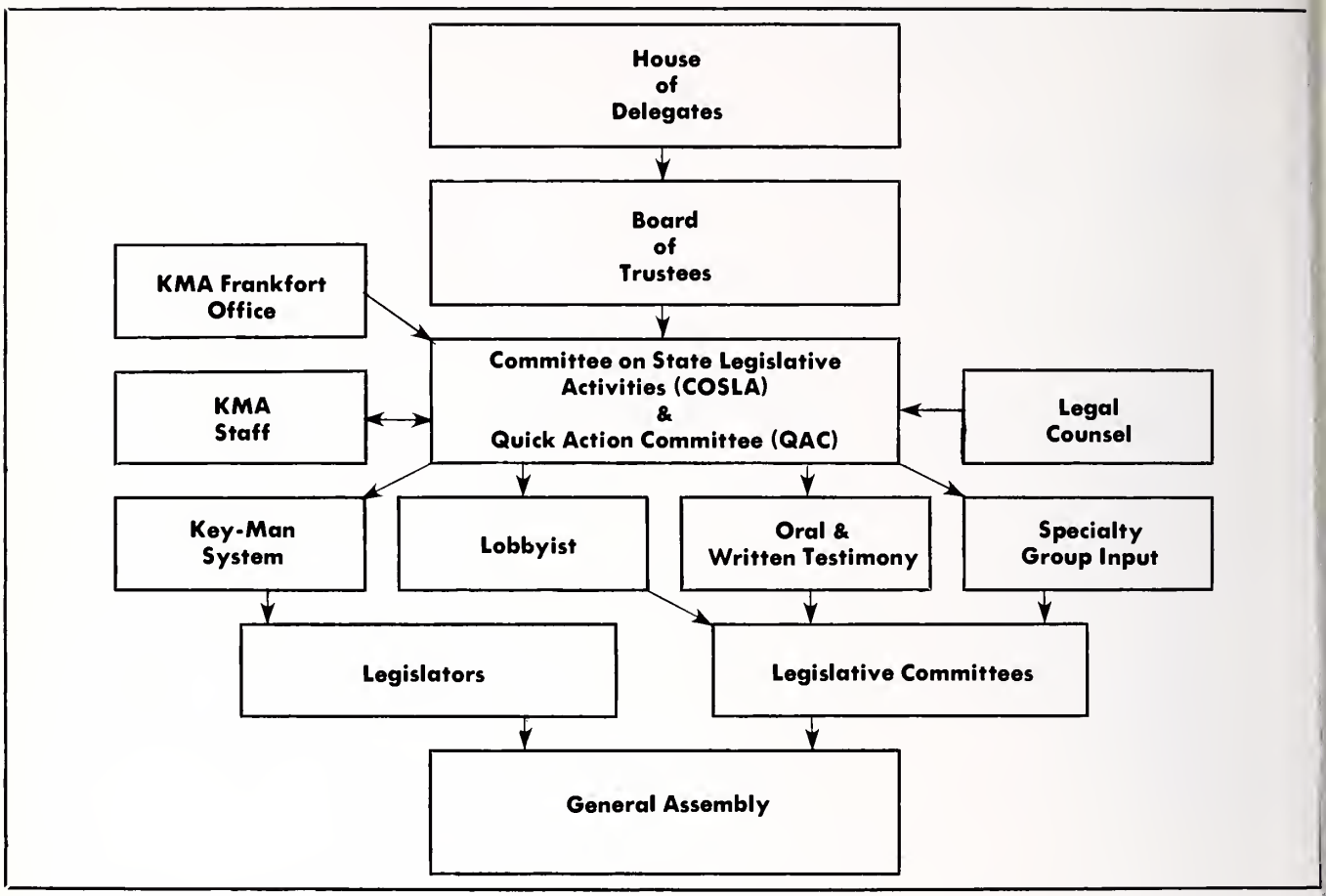
Registration forms for these workshops may be obtained via the March issue of the KMA "Communicator" or through this office. Registration is limited and those interested should contact the KMA office as soon as possible.

Open Hearing On Ethics

KMA's Ad Hoc Committee on Ethics, which was appointed by action of The House of Delegates, will conduct a hearing open to the membership on Wednesday evening, February 20, 7:00 p.m. at the KMA Headquarters office in Louisville.

The purpose of the meeting is to hear comments on the proposed revisions to the *AMA Principles of Medical Ethics*. Anyone wishing to present either oral or written opinions is requested to contact the KMA office for scheduling information.

Oral comments should be restricted to five minutes for each speaker. Copies of the proposed revisions are available from KMA.



How KMA Monitors and Reacts to Pending Legislation

The 1980 session of the Kentucky General Assembly convened on Tuesday, Jan. 8, for 60 legislative days. KMA's role in the legislative process is to inform and advise legislators of the effect proposed health legislation will have on the public and the medical profession.

This process begins with the House of Delegates which establishes policy and sets the Association position on anticipated legislation, e.g., brain death, physician assistants.

The Board of Trustees reviews all pending legislation, recommendations from legislative committees and establishes guidelines for the implementation of House policy.

The Quick Action Committee (QAC) is responsible for the day to day developments in the procedures of the General Assembly, and is comprised of the President, President-Elect, Chairman of the Board, Secretary-Treasurer and Chairman of the State Legislative Activities Committee. The QAC meets weekly during the session to monitor the current status of all bills, direct lobbying activities and arrange for presentation of testimony when needed. The COSLA seeks advice regularly from individuals and specialty groups on legislation because of the numerous amendments usually added to a bill during the course of the session.

The Legislative Committee reviews prefiled legislation, prepares recommendations for addressing pending legislation and recommends procedures to carry out House directives on associational policies.

The Frankfort office of the KMA is maintained daily during the General Assembly by a lobbyist and an assistant. All legislation is reviewed for its possible impact on the Association and referred to the Legislative Committee, Board of Trustees and Quick Action Committee as indicated.

The Key-Man system provides one to one contact, physician to legislator, as a means of disseminating associational positions on particular legislation. This system has proved to be one of the most effective ways

of communicating the Association's position on key legislation. Legislators review from 200 to 300 different bills during a session.

The Association may be required to testify before several legislative sub committees on a single piece of legislation. Prompt re-evaluation must be undertaken and new testimony presented.

The process of a bill becoming law, even without numerous amendments and referrals back to committee for reconsideration takes approximately 30 steps. And at any one step it may be delayed, amended or killed.



Members in the news

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Harry D. Abell, Paducah
Joselito S. Almario, Florence
Rodney Kent Bates, Stanford
Philip J. Begley, Harlan
Lowell James Black, Pikeville
Edward James Brockman, Louisville
Walter L. Cawood, Ashland
Charles Glyndon Click, Stanford
James Parker Crews, Cave City
Max Aldon Crocker, Lexington
Stanley Jos Cyran, Louisville
Stephen George Edelstein, Lexington
Gary Lewis Fuchs, Louisville
Julian R. Hardaway, Danville
Floyd Beaumont Hay, Albany
Robert G. Heimbrock, Erlanger
Ira L. Hemmings, Lexington
Leroy Charles Hess, Florence
Tsung Yao Huang, Louisville
Charles Norman Hurwitz, Covington
Prospero Ishkanian, Louisville
Van R. Jenkins, Lexington
Hunt B. Jones, Louisville
Wiley Elwood Kozee, Ashland
Larry Milford Leslie, Prestonsburg
Robert Bruce Matheny, Middlesboro
R. G. McAllister, Lexington
Sara Jean Parks, Owensboro
Elmer Gilson Prewitt, Corbin
Gene Whitfield Scott, Williamsburg
Paul Jesse Sides, Lancaster
Stephen Zalmon Smith, Louisville
Walter H. Stepchuck, Harlan
Jesse Clement Woodall, Trenton
Walter H. Zukof, Louisville

Keith Smith, M.D., general surgeon, has retired after 42 years of practice in Corbin, Ky.

Doctor Smith began his practice in Corbin in 1937 with his father, F. S. Smith, M.D., after graduating from the University of Louisville School of Medicine in 1936. He has been a member of the KMA for 42 years and has served as Vice President, Trustee for the 15th district, Chairman of the Board of Trustees, and was treasurer for 12 years.

Headquarters Activity

FEBRUARY

12	*Journal* Editors, Louisville
13	Sports and School Health Committee, Louisville
21	Paramedic Advisory Committee
21-24	AMA Leadership Conference, Chicago

MARCH

11	*Journal* Editors, Louisville
20	Budget Committee, Louisville
27	Executive Committee, Louisville

APRIL

2-3	Board of Trustees, Louisville
8	*Journal* Editors, Louisville
22-23	New Physicians Workshops, Louisville
24	Office Managers Workshop, Louisville
24	Medical Assistants Workshop, Louisville



Photo by U of L Biomedical Photo Division

Attending the recent opening of a new historical exhibit at the U of L School of Medicine are left to right: Dr. Harold F. Berg, Louisville, surgeon: Dean Arthur Keeney of U of L; W. R. Boebinger, advisor on the exhibit project and Dr. James Longley, Chairman of the U of L medical school anatomy department.

Historical Exhibit Opens at U of L

Photographs and facts about the University of Louisville School of Medicine, from its origins in 1837 to the present, have been gathered during the past year to establish a permanent historical exhibit at the school, 500 South Preston near Chestnut.

The exhibit of 30 photos, each with a narrative below it, includes 12 former deans of the school, 12 other former Louisville medical leaders and six medical landmarks. The exhibit is a project of the Medical School Dean's Department (Dean Arthur Keeney) with assistance of the U of L Archives and Records Center, the Filson Club and the Louisville Public Library.

The exhibit is open for the public from 8 a.m. to 5 p.m. daily. Visitors should go through the off-plaza entrance of the Student Instruction Building to the second floor and walk left to the foyer.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

KENTUCKY EMERGENCY PHYSICIAN—Lovely community of 10,000 in western Kentucky near Paducah needs two physicians to share evening rotations in the emergency department. 10 to 15 patients per 12-hour shift. Income excellent for this volume. For additional details, contact Tom Cooper, M.D., 970 Executive Parkway, St. Louis, Missouri 63141, or call toll free 1-800-325-3982, ext. 225.

EMERGENCY PHYSICIAN needed to share evening rotations in this emergency department located in a lovely community of 10,000 near Paducah; 10-15 patients seen per 12 hour shift; excellent compensation. For details contact Rena Ballard, 970 Executive Parkway, St. Louis, Missouri 63141 or call toll-free 1-800-325-3982.

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition. (502) 895-5429.

Assistance For Refugees

The AMA will coordinate the referral of volunteer physicians for service overseas as requests come in from voluntary organizations. Names of physicians willing to serve overseas should be referred to the Office of International Medicine at AMA headquarters. Please take into account that at this time, only limited numbers of volunteer physicians are being placed for short-term stays of three months. Most requests for volunteer physicians are for six months, with a preference for volunteers able to sign on for one or two years.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

Uncommon Problems in the Human Life Cycle



KMA Annual Meeting, Sept. 23-25, 1980, Ramada Inn/Bluegrass Convention Center, Louisville

Before prescribing, please consult complete product information, a summary of which follows:

The effectiveness of Valium (diazepam) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age, known hypersensitivity; acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients, should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea, have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status.

Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals under careful surveillance because of predisposition to habituation/dependence. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence, can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), i.e., phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function, avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE: Although promptly controlled, seizures may return, readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures, use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

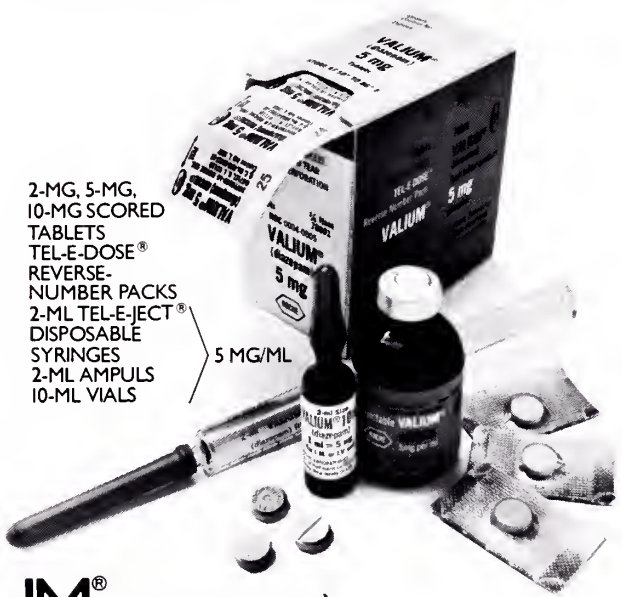
In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure, employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension; caffeine and sodium benzoate for CNS-depressive effects. Dialysis is of limited value.

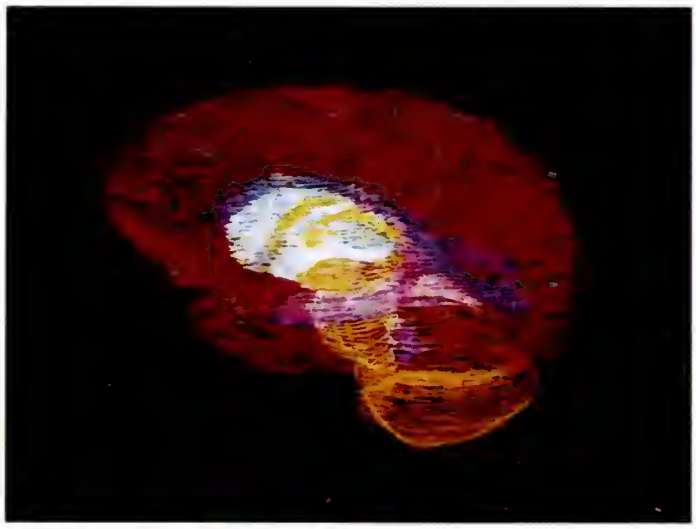
Supplied: Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500. Tel-E-Dose® (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available singly and in trays of 10. Ampuls, 2 ml, boxes of 10. Vials, 10 ml, boxes of 1. Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

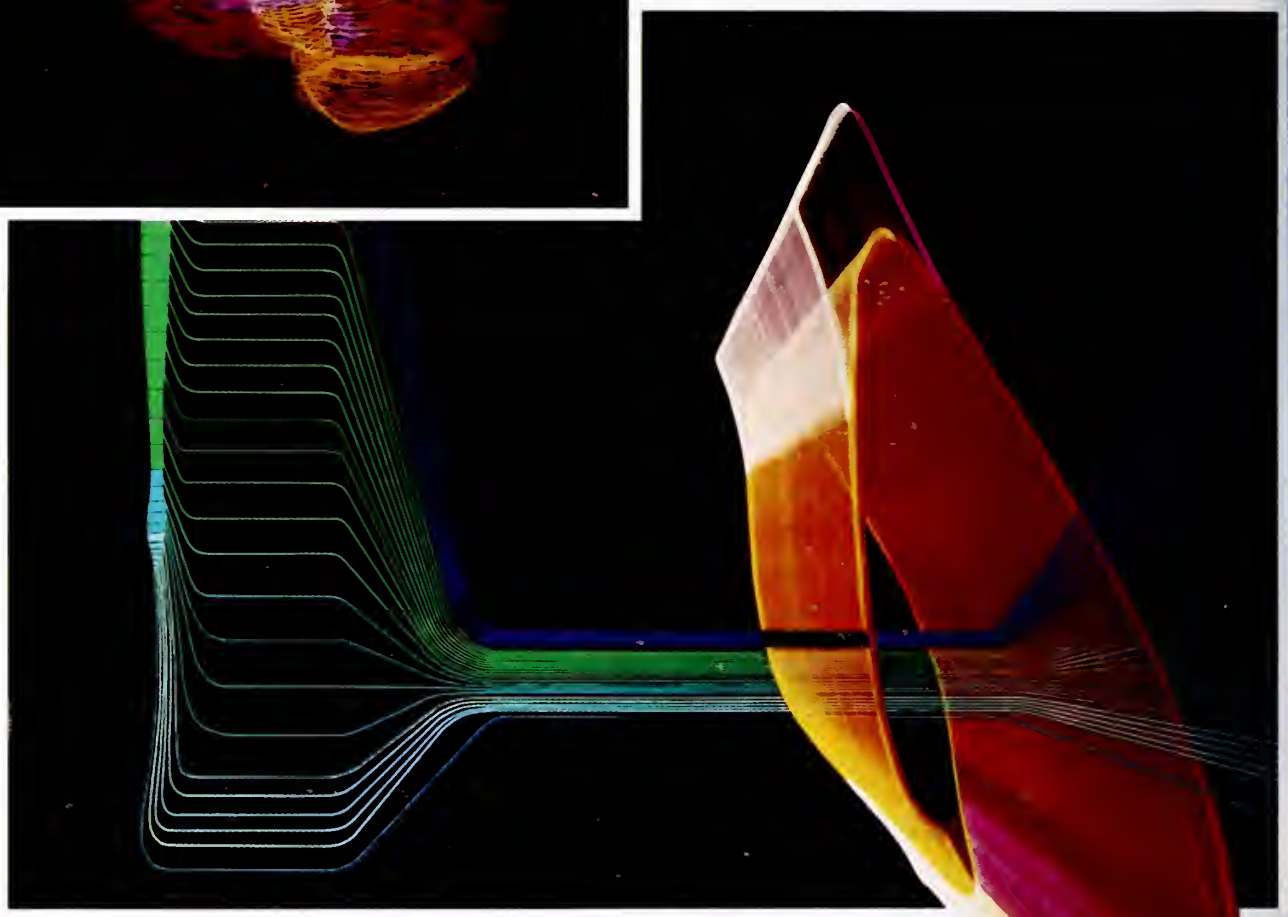


ONLY VALIUM® (diazepam) GIVES YOU THIS CHOICE OF DOSAGE FORMS AND FLEXIBILITY



PSYCHOTHERAPEUTIC

SKELETAL MUSCLE RELAXANT



ONLY VALIUM® (diazepam) IV HAS THESE TWO DISTINCT EFFECTS

Please see preceding page for a summary of product information.

ROCHE

L'illusion de Capgras

Regeneration of Organs in Animals and Humans

Antimicrobial Agents, Case #15 Legionnaires' Disease

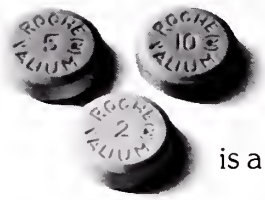
March 1980
Volume 78
Number 3

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA
APR 17 1980

The Journal Of The Kentucky Medical Association

LIB
COLLEG
OF P
APR 1 7 1980

A character all its own.



Valium (diazepam/Roche) is a benzodiazepine with a character all its own. Pharmacologically, it is a potent skeletal muscle relaxant and anticonvulsant (in adjunctive use), as well as an antianxiety agent. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

Valium® (IV)
diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Journal Of The Kentucky Medical Association

USPS 280-700

Volume 78•March 1980

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

L'illusion de Capgras—Syndrome or Phenomenon?
David Shraberg, M.D., William D. Weitzel, M.D. and Davis Shingleton, M.D. 125

Regeneration of Organs in Animals and Humans
Everett Truman Mays, II and Everett Truman Mays, M.D., F.A.C.S. 133

Clinical Choice to the Choice of Antimicrobial Therapy, Case #15: Legionnaires' Disease
John A. Van Arsdall, II, M.D., Julio C. Melo, M.D. and Martin J. Raff, M.D. 143

Femoro-Infrapopliteal Bypass: An Alternative Approach For Limb Salvage (Grand Rounds)
Sally Sherard Mattingly, M.D. 147

EDITORIAL

The Audit 161

OPINION

Physician, You're Losing 155

ASSOCIATIONAL NEWS

KEMPAC Elects Officers For 1980 175
Emergency Medical Care Meeting Scheduled for June 18-19 179
Digest of Board of Trustees Minutes December 12-13, 1979 179

REGULAR FEATURES

President's Page 121
Manuscript Information 127
Book Reviews 169
Trustee Report 177
Postgraduate Opportunities 122
Auxiliary Page 167
Members in the News 177
Headquarters Activity 180

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10
(Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• EDITOR
A. Evan Overstreet, M.D.

• ASSISTANT EDITORS
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• REGIONAL EDITORS
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• EXECUTIVE EDITOR
Robert G. Cox

• MANAGING EDITOR
Joseph A. Witherington, Jr.

• ASSISTANT MANAGING EDITOR
Donna M. Young

• DEPARTMENTAL EDITORS
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific
John W. Greene, Jr., M.D., Maternal Mortality

• BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Cook, III, M.D.
Stanley Lowenbraun, M.D.
Eugene H. Conner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 19

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 19

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 19

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 19

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 19

Speaker, House of Delegates ... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 19

Vice Speaker, House of Delegates PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 19

Chairman, Board of Trustees .... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 19

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 19

Delegates to the AMA

DAVID B. STEVENS, 2101 Nicholasville Road, Lexington 40503—606/278-3481 19
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 19
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 19
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 19
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 19
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 19

Trustees

1st ....WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 198
2nd ....R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 198
3rd ....HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 198
4th ....CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 198
5th ....WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ....EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ....WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 198
8th ....ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ....DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ....RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ....DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ....WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ....HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ....HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ....DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

MARCH BUYERS GUIDE FOR JOURNAL OF KMA

Aetna Life & Casualty 139
Burroughs Wellcome Company 142
Classified Column 180
Fenwick Hall 162
First Kentucky Trust Company 170
General Leasing Corporation 140
Insurance Corporation of America 146
Kentucky Medical Insurance Company 150
A.P. Lee Agency, Inc. 168
Eli Lilly & Company 16
Medical Protective Company 17
Merrell-National, Inc. 122,123,162, 163,172,173,17
Roche Laboratories 118,183,18
William H. Rorer Inc. 151,152,153,15
Smith, Kline & French 124,17
University of Louisville 16
Upjohn Company 164,165,16
Van Zandt, Emrich & Cary, Inc. 17
Wyeth Laboratories . 129,130,131,132,140, 141



'RESIDENT'S
'AGE

An "Outsider" Views The KMA From The Vice Presidency

HOW many times have you heard one of your colleagues raise a question such as "Why doesn't the KMA do something about Medicaid" or "the Board of Trustees certainly doesn't know what the doctors in Kentucky want?" We have all indulged in such criticism of organized medicine at one time or another when a given issue is of particular interest to us. As a most unlikely candidate who now enjoys the office of Vice President of the Kentucky Medical Association, my advice to those physicians in the state of Kentucky who feel that way is to become informed and involved in the activities of organized medicine.

The feeling is all too prevalent among physicians throughout the state that the fortunes of the KMA are guided by some sort of a secretive closed clique. It has been my experience that nothing could be further from the truth. When I say I am an unlikely candidate for the office of Vice President of this organization, I refer to the fact that, although a native Kentuckian, I am from northern Kentucky which many question as being actually a part of the state. I obtained my medical school education and residency training outside of the state and certainly had few close personal ties with other members of the profession when I began practice here 20 years ago. As a solo practioner of orthopaedic surgery initially, patient care demanded most of my time. It was obvious, however, that there were jobs in the medical community that needed doing and such offices as secretary of a medical staff or secretary of Campbell-Kenton County Medical Society were not difficult to obtain. Eventually, with the coming of the first of what has come to be five partners, the job of President of the County Medical Society no longer seemed an impossible task.

A few years ago when a colleague found the pressures of practice too great for him to continue his position as eighth District Trustee, I made my first of many trips to Louisville with the blessings and fine cooperation of my partners. To my great surprise, last year when my colleagues from the eighth district nominated me for the office of Vice President, the delegates elected me to that office.

I recount the above only in an attempt to encourage you as you read this to look upon the KMA more as **your** organization, working for the primary goal of improving patient care and obtaining the goals of practicing physicians in the state. In these days of wide-spread government and other third party intrusion into the patient-physician relationship, you can ill-afford to be uninformed or complacent. It is only with the support of an informed membership that the officers and Board of Trustees of KMA can effect change for the betterment of medical care in the state. The leadership of KMA is not a private club and you can prove that for yourself by becoming involved. The future Howells, Coopers, Stewarts, Parks, Hulls, Gardners, Raineys and Hess must come from a broad based constituency of Kentucky physicians representing a wide range of view points if the KMA is to continue as a strong effective voice influencing the course of health care in the state in the years to come.

This is the second in a series of articles written at the request of KMA President, Robert S. Howell, M.D.

RICHARD J. MENKE, M.D.
KMA Vice President

Postgraduate Opportunities

MARCH

7	C. Dwight Townes Seminar, Health Sciences Center**
7-8	Causes and Prevention of Environmental Cancers, Hyatt Regency, Louisville
18	Consortium Program, Louisville Baptist Hospitals
19-20	26th Annual Symposium on Cardiovascular Diseases, Commonwealth Convention Center
22	17th Annual Symposium of Oral Cancer Diagnostic Program, Health Sciences Center
24	Birth Asphyxia-Prevention, Management, Outcome, Hyatt Regency, Lexington*
27	Treatment of Skin Cancer, Health Sciences Center

APRIL

3	25th Annual Spring Clinical Conference, Specialty Problems in Primary Care, Lexington Clinic, Lexington
11-12	Recent Advances in Treatment of Diabetes, Hyatt Regency, Lexington*
15	Current Advances in Imaging Modalities, St. Anthony Hospital, Louisville
15-16	Seminar on Quality Assurance, Executive West, Louisville
19	Kentucky Society for Gastrointestinal Endoscopy, Second Annual Meeting, Hyatt Regency, Louisville
24-26	Update in High Risk Pregnancy Management, Hyatt Regency, Louisville
28-30	Southeastern Surgical Congress, 48th Annual Assembly, Marriott Hotel, Atlanta

MAY

4-8	Instructional Course in Hand Surgery, Marriott Inn, Clarksville, Ind.
5-6	Medical Aspects of Sports, Symposium: Physical Therapy Rehabilitation of Athletic Injuries, Hyatt Regency, Lexington*
11-16	11th Family Medicine Review, Session II, Hyatt Regency, Lexington*
16-17	Kentucky Surgical Society, Spring Meeting, Barren River State Resort Park, Lucas, Ky.

JUNE

22-28	5th Family Medicine Review, Galt House, Louisville**

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161*

***For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*

Quinamm™

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

Merrell

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®





Quinamm™

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.



Tagamet®

brand of

cimetidine

How Supplied:

Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

The Journal Of The Kentucky Medical Association

March 1980 Volume 78 Number 3

L'illusion de Capgras— Syndrome or Phenomenon?

David Shraberg, M.D., William D. Weitzel, M.D. and Davis Shingletan, M.D.

The authors suggest that the Capgras misidentification delusion may be understood as either part of a secondary phenomenon which has an organic etiology and involves the specific impairment of prosopagnosia and a poor prognosis or as an independent syndrome without associated signs of organic brain disease and which responds favorably to treatment.

Since its initial description in 1923 by Capgras and Reboul-Lachaux[1], this rare but colorful delusional illness in which the patient believes a person, usually a close relative, has been replaced by an imposter has aroused much controversy as to etiology and pathogenesis. Both organic[2] and psychodynamic explanations[3,4] have been advanced to explain this delusional misidentification. Although seen as part of more generalized psychiatric illnesses (e.g. paranoid psychoses, involutional depressions, organic brain syndromes), it also has been described as an entity unto itself. The authors suggest that the Capgras delusion may be understood as either part of a secondary phenomenon or as an independent syndrome. When the Capgras delusion is part of a secondary phenomenon, an organic contributor is generally present and the specific impairment of facial recognition, i.e., prosopagnosia, is often involved.[2,5] The Capgras syndrome may occur *de novo* as a unique example of schizophreniform illness and without associated organic impairment. The following case report highlights these distinctions.

Doctor Shraberg is Assistant Professor of Psychiatry and Neurology at Tulane University School of Medicine, New Orleans, LA; Doctor Weitzel is Associate Professor of Psychiatry at the University of Kentucky Medical School, Lexington, KY and Doctor Shingleton is a resident in Psychiatry at Tufts University School of Medicine, Boston, Mass.

Case Report

This 36-year-old woman was admitted for her first psychiatric hospitalization with the chief complaint that her real husband had been murdered and that she was currently living with his

imposter twin. She brought to the ward a loaded pistol and knife in her purse. According to her mother, the patient had experienced a four year downhill course marked by increasing concern about communists and land swindles in her community. She had developed the habit of cursing people and had told her biological mother that she was really a "foster mother."

This well-developed, moderately obese female's physical examination was within normal limits. Mental status examination revealed a hostile woman who treated her examiner with disdain and frequently called him "dummy." Her rapid speech was full of profanity. She spoke in a delusional way about her belief that her real husband had been murdered and that the man currently living in her house was an imposter. She claimed that this man had murdered some youths recently and that she had become afraid for herself and her children. She denied auditory hallucinations but did mention that the imposter husband was wiring her house and that she was being kept awake by buzzing. Her facial expression was flat and she avoided eye contact. The patient's cognitive functioning responses were accurate. However, when asked to interpret proverbs, she repeatedly first gave highly personalized answers followed by the appropriate and acceptable responses.

The patient's laboratory work including CBC, urinalysis, serum electrolytes, FBS, BUN, T_3 and T_4 were within normal limits. A chest x-ray, EEG, and CT scan of the head were interpreted as normal.

Although her initial MMPI was interpreted as portraying a woman who was expansive, distractable, and demonstrating exaggerated feelings of self-worth and self-importance, the patient's clinical presentation met the research criteria for a definite diagnosis of schizophrenia.[6] She was given the modified Benton Facial Recognition Test and was able to complete it without error.[7]

A WAIS showed a full scale IQ of 87 without significant subtest scatter. Administration of TAT revealed responses which were concrete, simple, and non-elaborative with denial and repression the dominant defense mechanisms.

The patient was placed on 15 mgm of fluphenazine. She showed a prompt response with an improvement in her behavior and thinking. Her husband was pleased to report that she showed increased spontaneity and concern about him and her children.

Discussion

In earlier studies on patients with delusional misidentifications resembling that described by Capgras, strong histories of organic impairment[2] and numerous errors on the Modified Benton Test for facial recognition were made.[5] Although this patient's delusion was similar to those of other patients' reported by us in an earlier study,[5] the results of her hospitalization were decidedly different. This patient's evaluation revealed neither prosopagnosia nor other signs of organic impairment. The clinical course was consistent with a schizophreniform illness but the central and essential symptoms involved a misidentification delusion.

The delusional misidentification described initially by Capgras may be understood as either a secondary phenomenon in some instances or a syndrome, *sui generis,* in others. Differences between the phenomenon and the syndrome include various factors related to the presence of organic impairment. In the Capgras phenomenon deficits secondary to chronic organic brain disease are present and the patients are usually older at the time of onset of the delusion. In this older group, organic impairment may be part of a paraphrenic process.[4] In those patients with Capgras phenomenon, no definitive treatment appears to relieve the symptomatic delusion and consequently the prognosis is poor because of the associated organic impairment. However, in the Capgras syndrome, the onset of the particular delusion appears to occur in a younger age group with no associated signs of organic brain disease. In this group, the delusions develop from intense intrapsychic and interpersonal conflicts involving relationships with significant others. As in our patient, primitive defenses such as ambivalence, repression, denial, and splitting are prominent. In the Capgras syndrome, the delusion itself responds more favorably to treatment.[3]

'ILLUSION DE CAPGRAS—Shraberg, Weitzel and Shingleton

In the future, patients exhibiting the misidentiation delusion originally described by Capgras ıy be differentiated into either the phenomen or the syndrome. Such a nosological distinc- n has implications for the determination of ology, treatment, and prognosis.

References 1. Capgras J and Reboul-Lachaux J. Illusion des sosie dans un delire systematise chronique. *Bulletin de la Societe Clinique de Medicine Mentale* 2:6-16, 1923. 2. Hayman MA and Abrams R. Capgras Syndrome and Cerebral Dysfunction. *Br J Psychiatry* 130:68-71, 1977. 3. Vogel F: The Capgras Syndrome and its Psychopathology. *Am J Psychiatry* 131 922-924, 1974. 4. Merrin EL and Silberfarb PM. The Capgras Phenomenon. *Arch Gen Psychiatry* 33:965-968, 1976. 5. Shraberg D and Weitzel WD. Prosopagnosia and the Capgras Syndrome. *J Clin Psychiatry*, 40:313-316, 1979. 6. Feighner JP et al: Diagnostic Criteria for use in Psychiatric Research. *Arch Gen Psychiatry* 26:57-63, 1972. 7. Benton AL and Van Allen MW. Impairment of Facial Recognition in Patients with Cerebral Disease. *Cortex* 4 344-358, 1968.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding t they are original and are contributed solely to The Journal. They uld be submitted in duplicate, typed with double spacing, and should tally not exceed 2,000 words in length. The transmittal letter should ignate one author as correspondent and include his complete address telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective uary 1, 1978, transmittal letters to the editor should contain the follow- language: "In consideration of The Journal Of The Kentucky Medical sociation's taking action in reviewing and editing my submission, the thor(s) undersigned hereby transfers, assigns, or otherwise conveys all pyright ownership to The Journal in the event that such work is pub- ied by The Journal.

Titles should include the words most suitable for indexing the article, uld stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis uld be a factual (not descriptive) summary of the work and should tain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

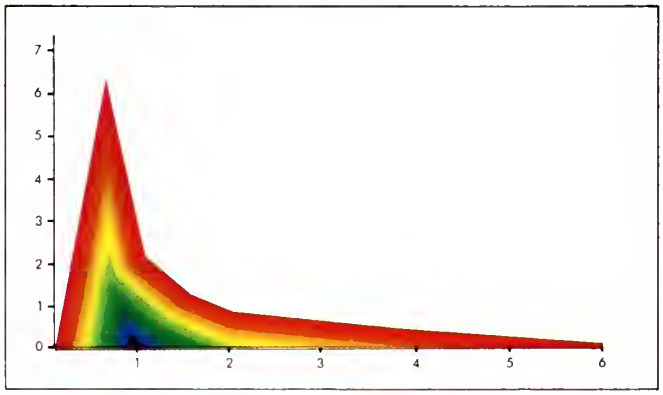
Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Uncommon Problems in the Human Life Cycle



Four Scientific Sessions-KMA Annual Meeting, Sept. 23-25, 1980,
Bluegrass Convention Center, Louisville

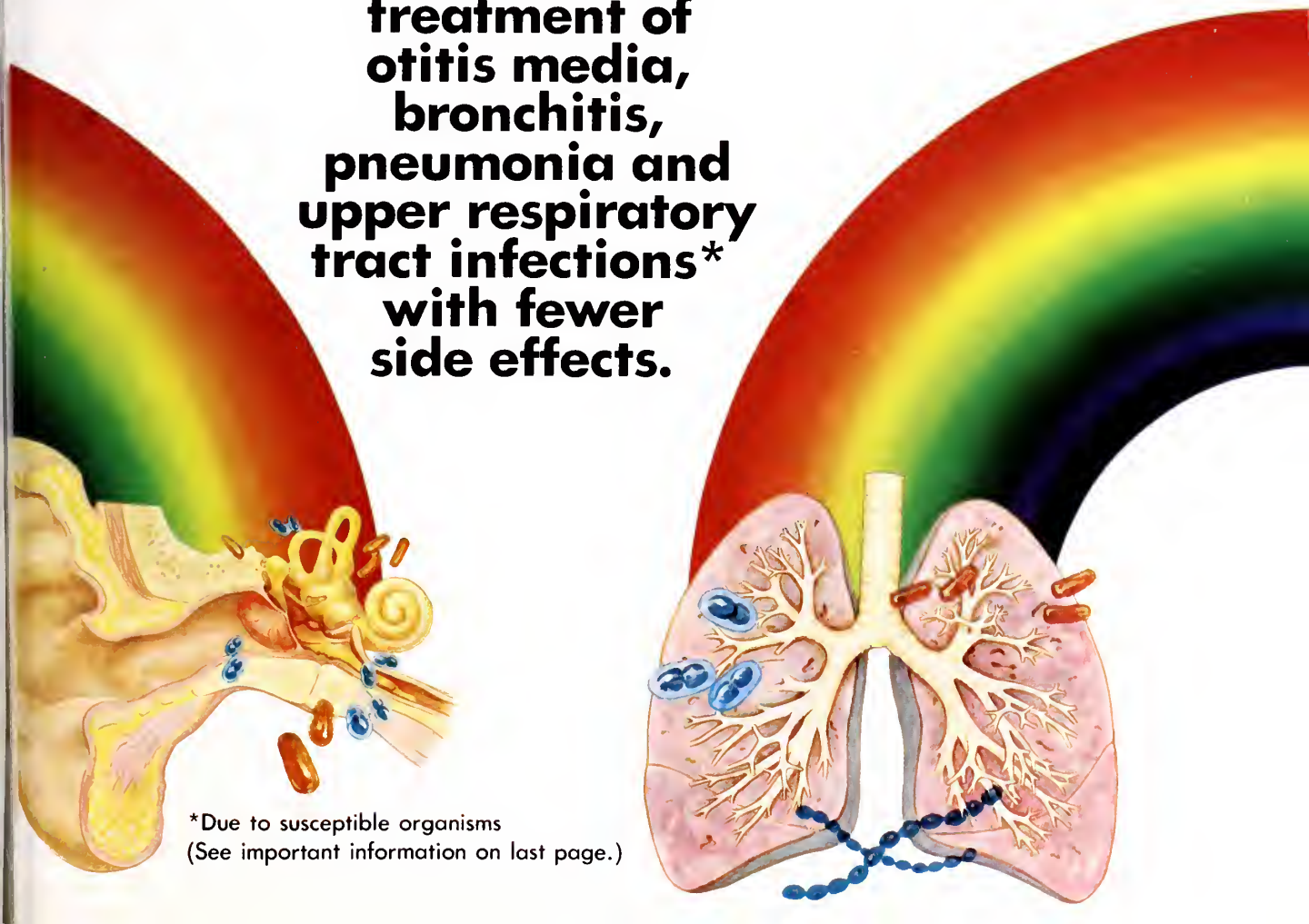
more than just spectrum



New CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Efficacy proven in the treatment of otitis media, bronchitis, pneumonia and upper respiratory tract infections* with fewer side effects.



*Due to susceptible organisms
(See important information on last page.)

New CYCLAPEN®
(cyclacillin) Tablets/ Suspension

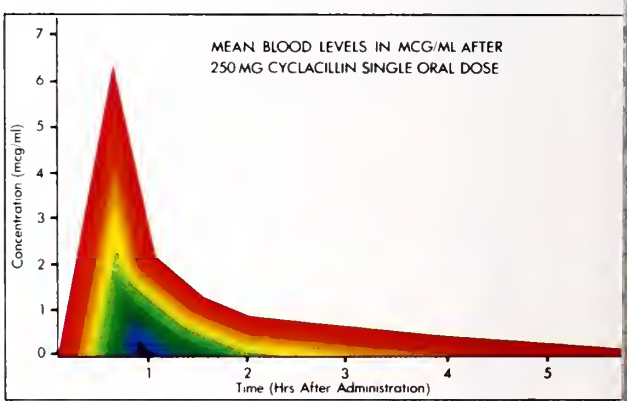
efficacy with fewer sid
ampicillin confirmed i
studies of 2,5

Rapid, virtually complete absorption from GI tract

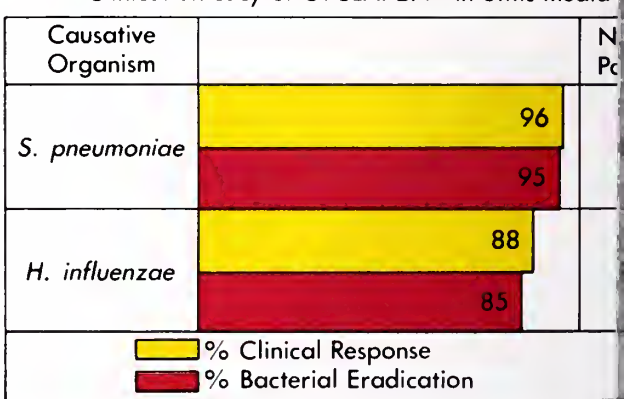
Rapid onset of action—mean peak serum levels within 30 minutes

Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)

Rapidly excreted unchanged in the urine—1½ times faster than ampicillin



Clinical efficacy of CYCLAPEN® in otitis media†



more than just spectr
in otitis media



*Includes all patients treated. 2,415 evaluated for safe
1,819 evaluated for efficacy.

†Due to susceptible organisms.

Copyright © 1979, Wyeth Laboratories. All rights reserved.

ffects than louble-blind atients*

er side effects with CYCLAPEN® in ble-blind studies to date[1,2]

otal number of drug-related side effects in all patients	
CLAPEN®	128 of 1,286 (10%) of patients
mpicillin	202 of 1,129 (18%) of patients
Difference statistically significant ($P < 0.001$)	

LAPEN® (cyclacillin)
ctive for otitis media† in children

xcellent clinical results in eliminating the vo most common causative organisms in titis media

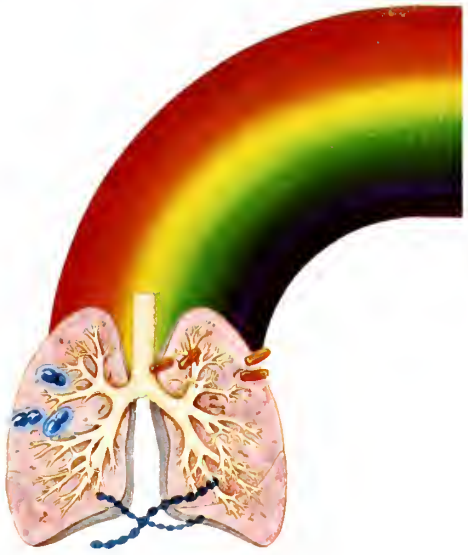
ignificantly lower incidence of diarrhea nd skin rash in children treated with YCLAPEN® Suspension

	diarrhea	rash
YCLAPEN	9.1%	2.1%
ampicillin	19.2%	5.8%
	$P < 0.001$	$P < 0.03$

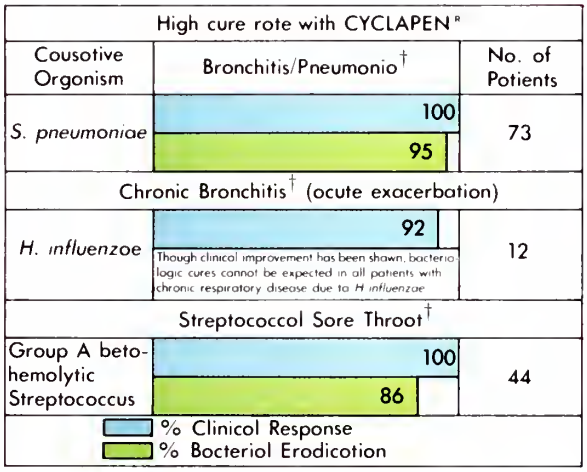
JA, Hegorty CP, Deitch MW, Wolker BR: ble-blind clinicol triols of oral cyclocillin ampicillin, *Antimicrob Ag Chemother* 5-58, (Jon.) 1979.

on file, Wyeth Loborotories.

mportant information on next page.)



In bronchitis, pneumonia and upper respiratory tract infections†



more than just spectrum CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Wyeth Laboratories
Philadelphia, Pa 19101

New from Wyeth Laboratories

CYCLAPEN®
(cyclacillin) Tablets/ Suspension



Usual children's dosage: 50 to
100 mg/kg/day in equally spac
doses, depending on severity.

more than just spectrum in otitis media, bronchitis, pneumonia, and upper respiratory tract infections*

- Rapid, virtually complete absorption from GI tract
- Rapid onset of action—mean peak serum levels within 30 minutes
- Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)
- Rapidly excreted unchanged in the urine—1½ times faster than ampicillin
- Significantly fewer episodes of diarrhea and skin rash than reported with ampicillin in studies to date
- Excellent clinical response and outstanding bacterial eradication documented in double-blind studies involving 2,581 patients
- New CYCLAPEN® Suspension—great-tasting raspberry punch flavor

*Due to susceptible organisms.

How Supplied

CYCLAPEN® (cyclacillin)
tablets:
250 mg scored tablets
500 mg scored tablets

Indications

Cyclapen® (cyclacillin) has less in vitro activity than other drugs in the ampicillin class of antibiotics and its use should be confined to the indications listed below.

Cyclapen® is indicated for the treatment of the following infections:

RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis Media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase prodocers

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any infections caused by *E. coli* and *P. mirabilis* other than urinary tract infections.)

NOTE: Cultures and susceptibility tests should be performed initially and during treatment to monitor the effectiveness of therapy and the susceptibility of bacteria. Therapy may be instituted prior to the results of sensitivity testing.

Contraindications

The use of this drug is contraindicated in individuals with a history of an allergic reaction to penicillins.

Warnings

CYCLACILLIN SHOULD ONLY BE PRESCRIBED FOR THE INDICATIONS LISTED IN THIS INSERT.

CYCLACILLIN HAS LESS *IN VITRO* ACTIVITY THAN OTHER DRUGS OF THE AMPICILLIN CLASS ANTIBIOTICS. HOWEVER, CLINICAL TRIALS HAVE DEMONSTRATED THAT IT IS EFFICACIOUS FOR THE RECOMMENDED INDICATIONS.

SERIOUS AND OCCASIONAL FATAL HYPERSENSITIVITY (ANAPHYLACTOID) REACTIONS HAVE BEEN REPORTED IN PATIENTS RECEIVING PENICILLIN. ALTHOUGH ANAPHYLAXIS IS MORE FREQUENT FOLLOWING PARENTERAL ADMINISTRATION, IT HAS OCCURRED IN PATIENTS ON ORAL PENICILLINS. THESE REACTIONS ARE MORE APT TO OCCUR IN INDIVIDUALS WITH A HISTORY OF SENSITIVITY TO MULTIPLE ALLERGENS. THERE ARE REPORTS OF PATIENTS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY REACTIONS WHO EXPERIENCED SEVERE HYPERSENSITIVITY REACTIONS WHEN TREATED WITH A CEPHALOSPORIN. BEFORE THERAPY WITH A PENICILLIN, CAREFUL INQUIRY SHOULD BE MADE ABOUT PREVIOUS HYPERSENSITIVITY REACTIONS TO PENICILLINS, CEPHALOSPORINS, AND OTHER ALLERGENS. IF AN ALLERGIC REACTION OCCURS, THE DRUG SHOULD BE DISCONTINUED AND APPROPRIATE THERAPY SHOULD BE INITIATED. SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN, INTRAVENOUS STEROIDS, AIRWAY MANAGEMENT, INCLUDING INTUBATION, SHOULD ALSO BE ADMINISTERED AS INDICATED.

Precautions

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

PREGNANCY: Pregnancy Category B. Reproduction studies have been performed in mice and rats at doses up to ten times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when cyclacillin is administered to a nursing woman.

Adverse Reactions

The oral administration of cyclacillin is generally well tolerated.

As with other penicillins, untoward reactions of the sensitivity phenomena are likely to occur, particularly in individuals who have previously demonstrated

CYCLAPEN® (cyclacillin)
oral suspension
125 mg per 5 ml:
100 ml and 200 ml bottles
250 mg per 5 ml:
100 ml and 200 ml bottles

hypersensitivity to **penicillins** or in those with a history of allergy, fever, or urticaria.

The following adverse reactions have been reported with the use
diarrhea (in approximately 1 out of 20 patients treated), nausea
(in approximately 1 in 50), and skin rash (in approxmately 1 in
instances of headache, dizziness, abdominal pain, vaginitis, and
been reported. (See WARNINGS)

Other less frequent adverse reactions which may occur and th
reported during therapy with other penicillins are: anemia, thro
thrombocytopenic purpura, leukopenia, neutropenia and eosin
reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have b

Dosage and Administration

INFECTION*	ADULTS	CHILDREN
		Dosage sho in a dose hi for adults
Respiratory Tract		
Tonsillitis & Pharyngitis**	250 mg q.i.d. in equally spaced doses	body weight lbs) 125 equally spa body weigh lbs) 250 equally spa
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d. in equally spaced doses	50 mg/kg equally spa
Chronic Infections	500 mg q.i.d. in equally spaced doses	100 mg/kg equally spa
Otitis Media	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 equally spa pending on
Skin & Skin Structures	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 equally spa pending on
Urinary Tract	500 mg q.i.d. in equally spaced doses	100 mg/kg spaced dos

*As with antibiotic therapy generally, treatment should be c minimum of 48 to 72 hours after the patient becomes asympt evidence of bacterial eradication has been obtained.

**In infections caused by Group A beta-hemolytic streptococci, 10 days of treatment is recommended to guard against the ris fever or glomerulonephritis.

In the treatment of chronic urinary tract infection, frequent ba clinical appraisal is necessary during therapy and may be requ months afterwards.

Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure

Based on a dosage of 500 mg q.i.d., the following adjustm interval is recommended:

Patients with a creatinine clearance of >50 ml/min, age interval adjustment
Patients with a creatinine clearance of 30-50 ml/min sh doses every 12 hours
Patients with a creatinine clearance of between 15-30 receive full doses every 18 hours
Patients with a creatinine clearance of between 10-15 receive full doses every 24 hours
In patients with a creatinine clearance of ≤1 serum creatinine values of · 10 mg %, serum cyclacillin le mended to determine both subsequent dosage and freq

Wyeth Laboratories
Philadelphia, Pa 19101

Regeneration of Organs in Animals and Humans

Everett Truman Mays, II and Everett Truman Mays, M.D., F.A.C.S.

We reviewed the incredible capacity of regeneration in simple animals and compared it to hepatic regeneration after lobectomy in 24 people. The initiators of this astonishingly rapid growth remain unknown. Mitotic inhibitors and their disappearance from the serum after hepatic lobectomy may be the signal for the liver to regenerate instead of some mysterious initiator. Insulin, glucagon, secretion and adrenocorticosteroids are necessary for hepatic regeneration.

The regeneration of body parts is an awesome capacity of simple animals. A salamander can grow a new forelimb if its ›releg is cut off, a tadpole can easily grow a new il when the original tail is lost, and the amazing- indestructible hydra can regenerate a complete ›dy after being cut into eight separate parts[1]. egretably, humans lost this uncanny ability to :generate body parts, with one singular excep- ›n: the liver.

The incredible regenerative powers of the hu- an liver makes possible the surgical removal of rge parts of the liver for trauma, cysts, and tu- ors. After surgical resection of a lobe of the uman liver there is an astonishing burst of itotic activity exceeding the growth rate of the fastest growing neoplasm. When hepatic mass has been restored sufficiently to achieve completion of the liver's myriad tasks this incredible regenerative hyperplasia suddenly stops. What initiates such fantastic growth? But more perplexing, what shuts off this intense regeneration at a suitable time?

We are reviewing the phenomenon of organ regeneration in simple animals and we are comparing it to hepatic regneration in humans. In doing so we cannot escape the salient concept that a more complete comprehension of hepatic regeneration can expand frontiers and open new horizons in understanding neoplastic growth.

Clinical Material

From a group of 62 patients who had various kinds of hepatic resections we selected 24 people who had lobectomy. These patients were selected because the line of resection was the lobar fissure. The senior author either supervised or did the lobectomy. This gave a standard group of patients to study regeneration of the human liver.

The pathologic conditions requiring lobectomy are listed in the table. Because the death rate in the group of trauma patients exceeded 50 percent we no longer believe hepatic resection is judicious in the hypovolemic patient with a ruptured liver. Hepatic hemorrhage is best controlled by hepatic artery ligation. Afterwards when blood volume is restored, circulation is stable and cardiac and renal function are adequate, hepatic lobectomy can be done if needed.

In survivors we studied rate of hepatic regeneration by technetium scanning and standard hepatic function tests. No patient had cirrhosis. The residual lobe of all livers was normal. All patients displayed evidence of hepatic regenera-

From the Departments of Biology and Surgery, Georgetown College id University of Kentucky. Read before the spring meeting of the Ken cky Chapter of the American College of Surgeons, Louisville, Ky., 'arch 8-10, 1979.

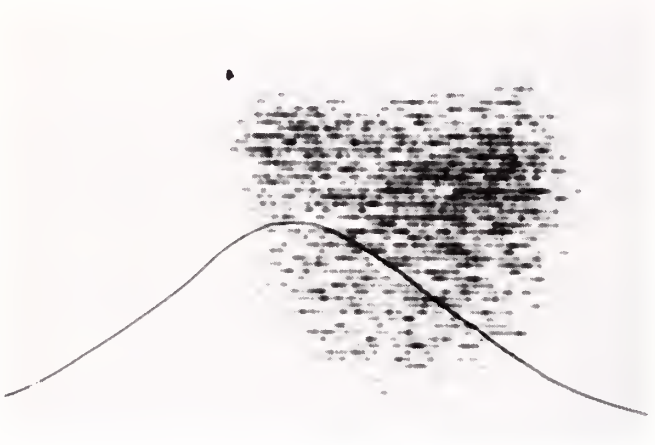
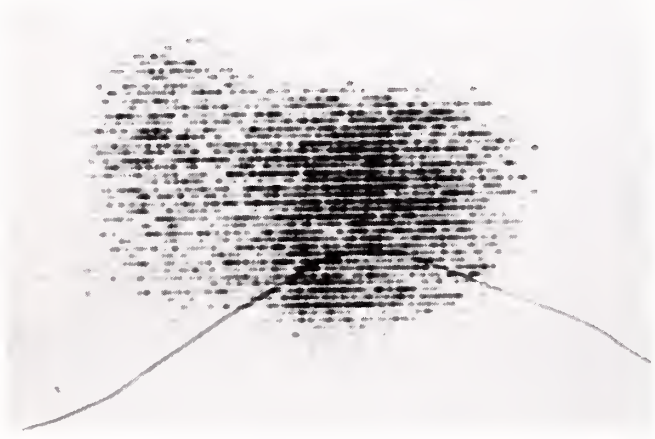
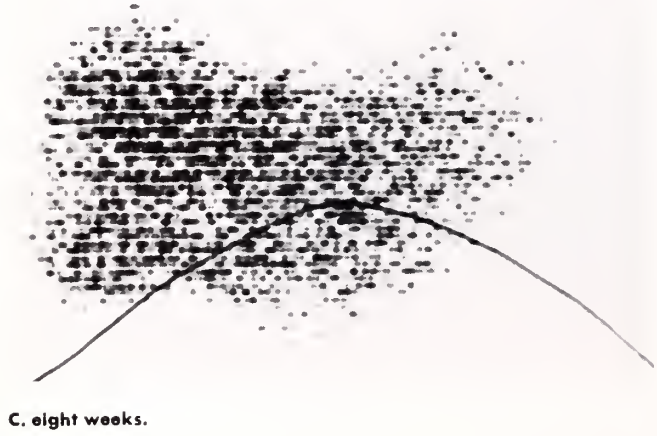


Fig. 1: Technituim scans portray the regeneration of a human liver after anatomic lobectomy on the right. A. one week after lobectomy



B. six weeks



C. eight weeks.

tion on scans. Regrowth was unusually rapid. was obvious on most scans at one week and con plete at six weeks. If the right lobe was remove the regenerating lobe grew into the space occ pied by that lobe and hepatic contour was genera ly restored. (Figure 1) But when the left lobe removed normal contour is not restored. Th growth appeared limited to the right side and th space occupied by the left lobe remained emp (Figure 2).

In selected patients we obtained angiograms the remaining portal vein. The remanent port vein dilates under the increasing volume of bloo flow to the residual lobe[2] (Figure 3).

The capacity of the regenerating liver to sy thesize protein and lipids is decreased for sever days[3] (Figure 4). Because biologists have prov hypoglycemia and hypoalbuminemia are fatal a inevitable consequences of massive hepatic rese tion in animals, we gave daily supplements of gl cose and serum albumin to obviate these phy ologic concomitants of hepatic lobectomy.

Discussion

In the 18th century a Swiss biologist, Abraha Trembly, made reproducible experiments usi the Hydra. Trembly cut the Hydra into as many eight pieces. Each piece successfully replaced th part needed to make a complete Hydra. A hyd cut lengthwise with a connection at the botto grew back together. If the head were amputate the Hydra grew a complete head[1]. Later investig tors used vital dyes and found a zone of ce beneath the head endowed with greater powers regeneration than others[4]. (Figure 5)

Some powers of regeneration are lost as a mals become more complex. Other animals hig er on the evolutionary scale have powers of r generation while young but lose such powers adults. While a tadpole can regenerate a comple leg, after metamorphic changes occur transfor ing the tadpole into a frog, this capacity is lo Thomas Morgan implied that certain animals organs may lose the capacity for regenerati with age because their cells become too speci ized. But when the frog loses its ability to rege erate, its tissues are less specialized than those

e salamander which, even as an adult, is capae of complete leg regeneration[4]. (Figure 6) Not only age but nerve supply influences the generation of limbs in animals. The adult frog is ıable to regenerate a leg. But if a forelimb is ıputated and the sciatic nerve dissected free ɔm the hindleg and pulled by a thread under the in then transplanted to the end of the stump of e amputated forearm, a new foreleg develops igure 7)[4]. Apparently something from the ınsplanted nerve restores the frog's primitive ility to regenerate the foreleg. In the salamanr the opposite experiment confirms the imporıce of nerves in regeneration: Cutting the rves of the amputated salamander stump stops generation of the leg.

Ancient Greeks knew of the venerable regenative powers of the human liver. Hesiod and eschylus recounted the torturous tale of *ometheus* in their poetry. Because Prometheus ve fire to man, Zeus banished him to the ıucasus and ordered him chained to the rocky ffs. According to Aeschylus, vultures came ch day and ate away at the liver of Prometheus rough a stanchion wound in his right side. At ght the liver regenerated. Prometheus survived s ordeal and 1,000 days later was released ɔm his chains with a functioning liver.

But while hepatic regeneration is a long estabhed fact the mechanisms by which it occurs main obscure. Numerous controversies ırish: Is insulin or glucagon paramount, is ɔod flow or hormones carried in the portal ɔod of greater importance, are pancreatic subıınces or non-pancreatic substances the true tiators of hepatic regeneration? In 1929 Rous d Larimore[5] discovered the necessity of portal ɔod in hepatic growth. They called such unown factors "hepatotropic" substances. Since ɜn a whelming cascade of information suggests ɜulin and glucagon or the ratio of insulin to ıcagon in the portal blood initate hepatic regenıation[6]. Other biologists believe regenerative patic hyperplasia is initiated by blood borne fac's of systemic nonportal orgin and that portal ctors potentiate hepatic regeneration rather ın initiating it[7]. Hepatic regeneration is also ɔdified by hormones from the pituitary, adre-



Fig. 2: After lobectomy on the left the remanent right lobe undergoes regenerative hyperplasia. A. one week after lobectomy ↑ B. six weeks after lobectomy.↓



nal, and thyroid glands but none is essential to the process.

Many studies done in dogs support the premise that the prime initiator after hepatic lobectomy is the increase in blood pressure and blood flow in the remanent portal vein. Our angiograms done in humans after hepatic lobectomy give additional support to this speculation. (Figure 3)

Starzl and co-workers dogmatically say insulin is the most important of the portal constituents collectively called hepatotropic substances[8]. But Bucher and colleagues have evidence that insulin and glucagon act in synergy at least in whole animal models and potentiate hepatic regeneration rather than initate it[9,10]. Leffert and Koch[11,12] focused on two paradoxes of hepatic proliferation: 1. The obligatory insulin requirement for regeneration after 70% hepatectomy concomitant with dramatic hypoinsulinemia and 2. The prolifer tion, stimulating and inhibiting properties of tl adrenal glucocorticoids. It appears that norm adult liver cells absolutely require glucocortico levels for net proliferative increase whereas sim lar concentrations inhibit growth of fetal cel Steroids which fail to bind to glucocorticoid r ceptors or to be translocated into the nucleus al fail to stimulate or inhibit growth.

From these and other animal experiments v have four sources of evidence to indicate a me ley of hormonal and nutritional factors that co



Fig. 3: This venous angiogram of the portal vein after lobectomy on the right for a shotgun wound displays dilatation of the remaining portal vein. Some scholars consider this change to be the signal for hepatic regeneration. PV-portal vein, LPV-left ramus of portal vein.

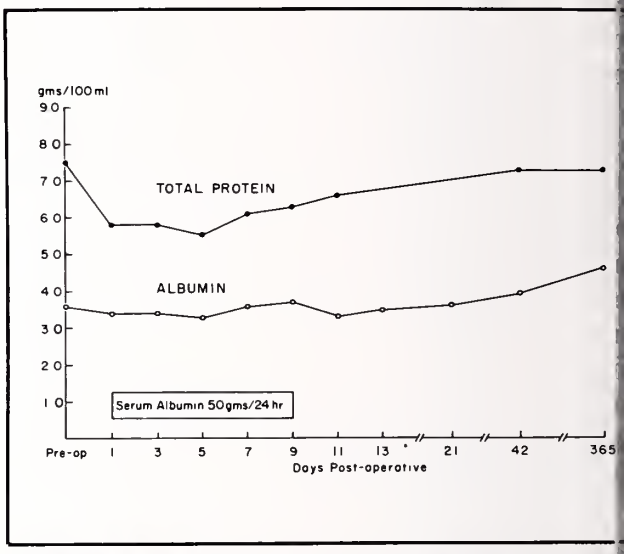
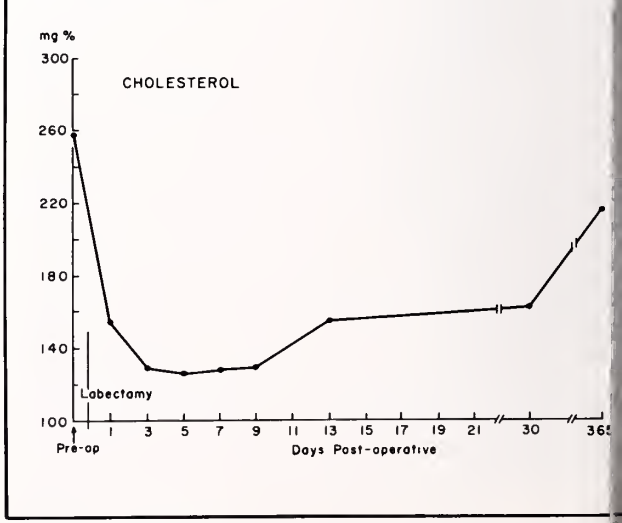


Fig. 4: [After hepatic lobectomy blood protein and lipid val decrease until regeneration restores the capacity of the liver biosynthesis.]



rol hepatocyte proliferation. First, studies of se-um after partial hepatectomy in animals indicate egeneration of the liver is dependent upon the resence of insulin, glucagon and parathyroid ormone. Second, in cultures of differentiated epatocytes under varying conditions, glucagon, lucocorticoids, iodothyrines, somatomedin-C, mino acids and epidermal factor stimulate DNA ynthesis. Third, except for glucocorticoids and omatomedin-C all these factors stimulate some epatic DNA synthesis in the intact animal after ppropriate infusions. Fourth, all the above sub-tances show sudden changes in blood concentra-ions after partial hepatectomy but not after lapa-otomy. These changes occur in rough proportion o the amount of liver excised.

Controversies rage. Confusion burgeons. Are 'hepatotrophic'' substances only modifiers of epatic regeneration and in our haste to seat insu-in above glucagon or blood flow above insulin ave we overlooked the mystery which sets in notion the astonishing growth of the human liver fter partial hepatectomy. Perhaps there are pri-nordial cells in the human liver similar to the one of special cells just below the tentacles of the ydra.

Overlooked too may be the place of hepatic nnervation in starting new growth after partial epatectomy. Morphologic investigations in man howed dense sympathetic innervation of the liv-r parenchyma[13]. The necessity of nerve supply is learly evident in frog experiments. Work in sev-ral laboratories has uncovered a protein called he nerve-grow factor (NGF)[14]. The discovery of NGF prompted an intense search for other specif-c growth factors. Epidermal growth factor is a olypetide similar to insulin in molecular weight ut otherwise dissimilar. It is mitogenic in cul-ures of epithelial cells and some fibroblasts[15]. Is here another yet unrecognized growth factor pecific for hepatocytes and transported through xons of the densely innervated liver? Such sig-nals to the residual lobe of the liver might be similar to the signals carried by the sciatic nerve of the amputated foreleg of the frog.

TABLE 1

HEPATIC LOBECTOMY

BENIGN TUMORS	7	
HEPATOCELLULAR CARCINOMA	2	
GB CARCINOMA	1	
TRAUMA	14	
	Total-24	
AGE RANGE	18-51	yrs.
OBSERVATION TIME	8-120	mos.



Fig. 5: Vital staining of the specialized cells beneath the tentacles of the hydra shows the importance of these primordial cells in regeneration. (Reproduced by permission Scientific American.)



Fig. 6: The salamander as a adult can regenerate a foreleg even though its cells are more highly specialized than the adult frog which can not regenerate its foreleg. (Reproduced by permission Scientific American.)

Mitotic inhibitors have been found in nearly all human and animal tissues. To describe these growth inhibitors Scahafer proposed the word chalone (from the Greek Chalao "lesser" or "lower"). In 1960 Bullough and Lawrence gave the first experimental proof for the presence of chalones[16]. Chalones are species non-specific but tissue specific. Biochemical analyses show the chalones are proteins. After intense research throughout the 1960's inhibition as opposed to stimulation now can be invoked when attempting to explain regeneration.

Serum from a normal rat inhibits hepatic regeneration while serum taken from a partially hepatecomized rat causes increased regenerative activity in the liver[17]. Mere dilution of plasma causes mitotic stimulation of hepatic cells. Such results indicate the presence of freely diffusible substances in the serum of normal adult rats which inhibit regeneration of the liver. This substance (chalone) disappears from the serum of partially hepatectomized rats. Hepatic chalones can be diluted to ineffective concentrations in serum by plasmapheresis[18].

Apparently, constituents of blood sera (chalones) in normal concentrations inhibit hepatic growth. Surgical ablation of large parts of the liver reduces the concentration of chalones. When the concentration of chalones in the serum returns to normal, hepatic regeneration stops. Such a premise does not then require a mysterious and elusive initiator of hepatic regeneration. Insulin, glucagon and adrenocorticosteroids in the inhibitor hypothesis simply act as modifiers.



Fig. 7: The lost capacity of regeneration of organs in the adult frog can be restored by transplanting the sciatic nerve into the stump as illustrated above. (Reproduced by permission of Scientific American.)

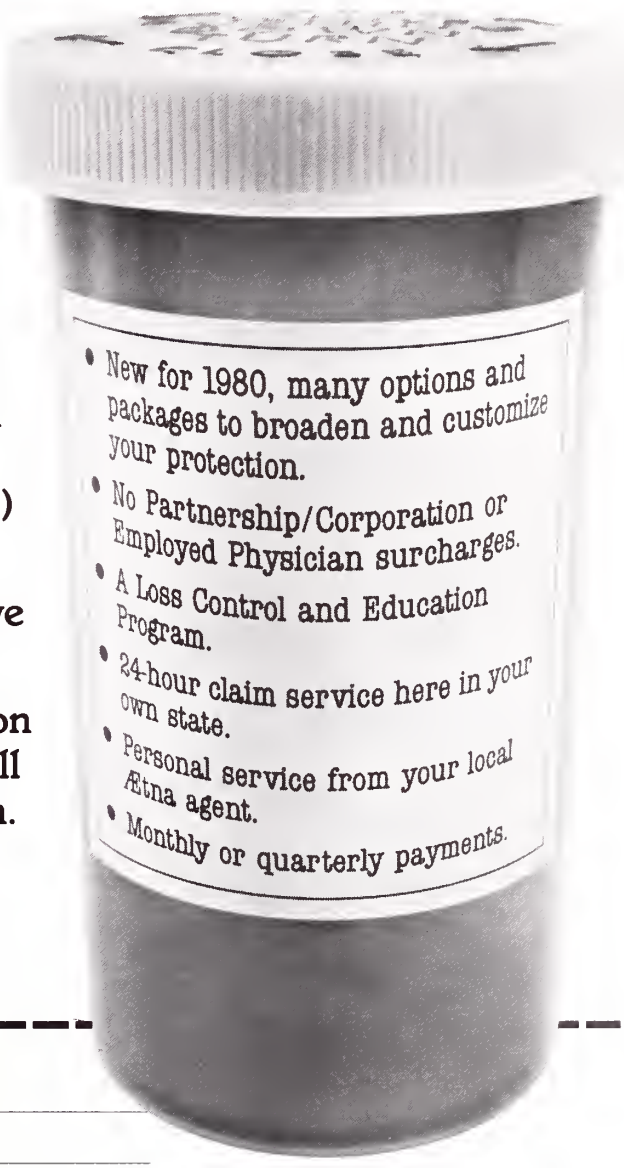
References 1. Berell NJ: The indestructible hydra. *Scientific Am* 197:80, 1957. 2. Mays ET. Hepatic lobectomy. *Arch Surg* 103:216- , 1971. 3. Mays ET: Physiologic consequences of hepatic lobectomy in Man. *South Med J* 68:399-406. 4. Singer M. Regeneration of body parts. *Scientific Am* 79:1958. 5. Rous P, Larimore, LD. Relation of the portal blood to liver maintenance: a demonstration of liver atrophy conditional on compensation. *J Exp Med* 31:609-632, 1920. 6. Starzl TE; Porter KA; Francavilla A; Benichou J; Putnam CW: A hundred years of the hepatotrophic controversy, in hepatotrophic factors. *Ciba Foundation Symp* 55. Elsevier North Holland: 1978. 7. Greisler HP; Vorrhees AB; Pirce JB. The non-portal origin of ht factors initiating hepatic regeneration. *Surgery* 86:210-217, 1979. 8. Starzl TE; Porter KA; Kashiwag N; Putnam CW: Portal hepatotrophic factors. *Surgery Gynec Obst* 141.843, 1975. 9. Bucher NLR: Experimental aspects of hepatic regeneration NEJM 277-686, 1967. 10. Bucher NLR; Patel U; Cohen, S: Hormonal factors concerned with liver regeneration in hepatotrophic factors. *Ciba Foundation Symp* 55 Elsevier North Holland, 1978. 11. Leffert HL; Koch KS: Proliferation of hepatocytes in Hepatotrophic Factors. *Ciba Foundation* Symp. 55 Elsevier North Holland, 1978. 12. Leffert HL; Koch KS; Rubalcava, B: Present paradoxes in the environmental control of hepatic proliferation. *Cancer Res* 36:4250-4255, 1976. 13. Jarhult J; Falck B; Ingemansson S; Nobin A: The functional importance of sympathetic nerves to the liver and endocrine pancreas. *Ann Surg* 189:96-100, 1979. 14. Levi-Montalcini R; Calissano P: The nerve growth factor. Scientific American 240:68-71, 1979. 15. Cohen S; Carpenter G; Lemback K: Interation of epidermal growth factor with cultured fibroblasts. *Ad Meta Disorders* 8:265-284, 1975. 16. Bullough WS; Lawrence EB: The control of epidermal mitotic activity in the mouse. *Pro Roy Soc London* 151:517, 1960. 17. Stich HF; Florian ML: The presence of a mitosis inhibitor in serum and liver of adult rats. *Canad J Biochem Physiol* 36:855-859 1958. 18. Glinos AD; Gey GO: Humoral factors involved in the induction of liver regeneration in the rat. *Proc Sec Exp Biol Med* 80:421, 1952.

Ætna prescribes 11.6% off 1980 professional liability insurance.

To make you feel better, the cost of professional liability insurance for Kentucky physicians has been reduced a healthy 11.6%. Yet coverages are up. (See label on right.)

Plus, physicians in their first or second year of practice will receive substantial additional discounts.

Make your incision, cut the coupon and mail. Without obligation, we'll see that you get more information.



Name or Group _____

Address _____

City _____ State _____ Zip _____

My present insurance expires on _____

Return to: Carroll York—CID manager
Ætna Life & Casualty
2000 First National Tower
101 South 5th Street
Louisville, KY 40202

Ætna
LIFE & CASUALTY

The Standard Fire Insurance Company

PERSONAL SERVICE

is the Reason so Many Doctors Lease from Us!

All Are Leasing Specialists:

Bill Foster
ACCT. EXEC.

Ben Gabbard
ACCT. EXEC.

Lee Balz
ACCT. EXEC.

Ed Harvey
ACCT. EXEC.

Ted DeFosset
GEN. MGR.

Jim Powell
ACCT. EXEC.

General Leasing
CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

Leasing Cars—All makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

Brief Summary of Prescribing Information

Indications and Usage: Symptomatic relief of anxiety, tension, agitation, irritability an insomnia associated with anxiety neuroses and transient situational disturbances; anxiet associated with depressive symptoms and as a treatment of symptoms of anxiety if such symp toms are a significant feature of functional or organic disorders, particularly gastrointestinal c cardiovascular

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systen atic clinical studies. Reassess periodically usefulness of the drug for the individual patient

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS acting drugs, warn patients on lorazepam not to operate machinery or motor vehicles, and diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barb turates and alcohol have occurred following abrupt discontinuance of benzodiazepine (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addi tion-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillanc when on benzodiazepines because of their predisposition to habituation and dependenc Withdrawal symptoms have also been reported following abrupt discontinuance of benzod azepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid ove sedation.

Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occ sional convulsions.

Observe usual precautions with impaired renal or hepatic function.

Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepa has not been shown of significant benefit in treating gastrointestinal or cardiovascular comp nent.

Esophageal dilation occurred in rats treated with lorazepam for more than 1 year 6mg/kg/day. No effect dose was 1.25mg/kg/day (approximately 6 times the maximum hum therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn with 2 months of first observation. Clinical significance is unknown; but use of lorazepam for p longed periods and in geriatric patients requires caution and frequent monitoring for sympto of upper G.I. disease.

Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have h elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function te are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depress effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabb Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschi malformed skull and microphthalmia) were seen in drug-treated rabbits without relationshi dosage. Although all these anomalies were not present in the concurrent control group, t have been reported to occur randomly in historical controls. At 40mg/kg and higher, there v evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lo doses. Clinical significance of these findings is not known. However, increased risk of cong tal malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam meprobamate) during first trimester of pregnancy has been suggested in several stud Because use of these drugs is rarely a matter of urgency, use of lorazepam during this pe should almost always be avoided. Possibility that a woman of child-bearing potential may pregnant at institution of therapy should be considered. Advise patients if they become pr nant to communicate with their physician about desirability of discontinuing the drug.

In humans, blood levels from umbilical cord blood indicate placental transfer of lorazep and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like o benzodiazepines. As a general rule, nursing should not be undertaken while on a drug si many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and gene disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxi patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.5 weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, r sea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, function disturbance, various gastrointestinal symptoms and autonomic manifestations. I dence of sedation and unsteadiness increased with age. Small decreases in blood press have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind that multiple ag may have been taken. Manifestations of overdosage include somnolence, confusion and co Induce vomiting and/or undertake gastric lavage followed by general supportive care, mon ing of vital signs and close observation. Hypotension, though unlikely, usually may be contro with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® (lorazepam) IV for Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase d gradually when needed, giving higher evening dose before increas daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosa may vary from 1 to 10mg/day in divided doses. For elderly or del tated, initially 1-2mg/day; insomnia due to anxiety or transient sit tional stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

Wyeth Laboratories
Philadelphia, PA 19101

Copyright © 1979, Wyeth Laborat Div. of AHPC, N.Y., N.Y. All rights rese

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

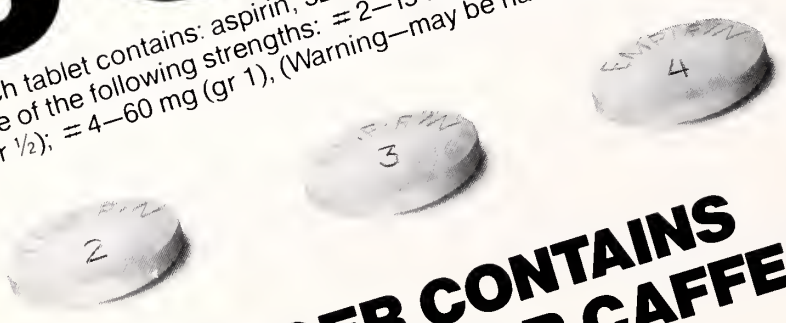
Ativan® (lorazepam) for Anxiety

~~EMPIRIN®~~
~~COMPOUND~~
~~C CODEINE~~
IS NOW

EMPIRIN®
C CODEINE



Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: ⁼2—15 mg (gr ¼); ⁼3—30 mg (gr ½); ⁼4—60 mg (gr 1), (Warning—may be habit-forming)



NO LONGER CONTAINS PHENACETIN OR CAFFEINE.

ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

A Clinical Approach to the Choice of Antimicrobial Therapy, Case Number 15: Legionnaires' Disease

John A. Van Arsdall, II, M.D., Julia C. Mela, M.D. and Martin J. Raff, M.D.

This is the fifteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antibiotics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

The patient is a 55-year-old white male smoker, who presents to hospital with a five day history of fever, rigors, diffuse myalgias, diarrhea, dry non-productive cough, and pleuritic chest pain. Three days prior to admission he noticed the onset of severe headaches, and the family says he had become confused during the past 24 hours. There have been no symptoms suggesting upper respiratory tract infection. There is no past history of significant medical illnesses or hospitalization. He is married with three children. No family members have been ill or experienced similar complaints.

Physical examination reveals a disoriented white male in moderate respiratory distress. Blood pressure is 150/90 mm Hg, temperature 103.5°F, respirations 30/min., and pulse 120/min. The lips and nail beds are cyanotic and he has rapid shallow respirations. Cardiovascular examination reveals only sinus tachycardia. Auscultation of the lungs demonstrates bilateral basilar rales with decreased breath sounds and clinical evidence of consolidation in the right lower lobe posteriorly. Abdominal examination shows right upper quadrant tenderness and hypoactive bowel sounds. The remainder of the physical examination is normal.

Laboratory reveals a hemoglobin of 15.4 gm/dl, hematocrit 48%, and white blood cell count of 15,500/mm^3. There are 70% neutrophils, 16% bands, and 14% lymphocytes. Chest x-ray demonstrates bilateral lower lobe infiltrates with consolidation involving the right lower lobe. Urinalysis reveals 2+ protein. Expectorated sputum is unobtainable.

At this point it would be appropriate to do each of the following **except:**

A. Arterial blood gases.
B. Transtracheal aspiration for gram and acid fast stains and cultures.
C. Lumbar puncture.
D. Begin penicillin G, 600,000 units I.M. bid.
E. Blood cultures times three; 30 minutes apart.

Answer: D.

Penicillin or other antimicrobial therapy should **not** be initiated pending further diagnostic evaluation for an etiologic agent. The clinical history, physical examination and laboratory findings all suggest a primary, severe decompensating pneumonia of undetermined cause. At this time empirical therapy to which the patient may not

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, P.O. Box 35260, Louisville, Ky. 40232.

respond may interfere with the isolation of a causative organism, and is therefore inappropriate until initial studies are underway. The patient is cyanotic, dyspneic and obviously in respiratory distress. Arterial blood gases are indicated to assess the blood pH, degree of hypoxemia, and extent of respiratory support which may be needed. Since gram stain of pulmonary alveolar exudate is the most important procedure used to obtain information with which to select appropriate antimicrobial therapy, a transtracheal aspiration is indicated. Gram stain and aerobic and anaerobic cultures should be performed on the material obtained. In addition, blood cultures should be drawn since several common forms of bacterial pneumonia may give rise to bacteremia in 30% of patients[1]. Often the bacterial diagnosis is made by blood cultures in the absence of isolation of a pathogen from the sputum culture. *Streptococcus pneumoniae* (pneumococcus) is a fastidious organism which frequently fails to grow from coughed sputum specimens, but is commonly isolated from blood cultures drawn prior to institution of antibiotic therapy[1]. Blood cultures are necessary because if the patient is bacteremic the duration of therapy may be extended and further diagnostic procedures warranted.

The patient presented is confused and febrile, and therefore a lumbar puncture with cerebrospinal fluid (CSF) analysis is mandatory. One third of patients with pneumococcal meningitis will present with pneumonia as the primary focus of infection[2].

The CSF is normal. The transtracheal aspiration reveals few to moderate neutrophils and no organisms. The patient's arterial blood gases demonstrate profound hypoxemia. At this time you should do each of the following **except:**

A. Acute *Mycoplasma pneumoniae* titers.
B. Acute Legionnaires' disease titers.
C. Begin penicillin G, 600,000 units I.M. bid.
D. Cold agglutinins.
E. Mono spot test.

Answer: C

Although once initial laboratory studies have been undertaken and it is reasonable to begin antibiotics empirically, penicillin would be inappropriate since the patient's clinical features are generally not compatible with pneumococcal pneumonia. Provided there has been no prior antibiotic treatment, pneumococci should be easily demonstrated on gram stain of sputum or in this instance, transtracheal aspiration. The clinical history also mitigates against a diagnosis of *Streptococcus pneumoniae* infection. Repeated chills, diarrhea, diffuse myalgias, and a noticeably non-productive cough are not commonly associated with pneumococcal pneumonia.

No significant bacteria were demonstrated in the transtracheal aspirate and only moderate numbers of neutrophils were seen. Therefore other etiologies for the pneumonia should now be considered. Viral pneumonia and mycoplasma should be considered in the absence of bacteria. Mycoplasma pneumonia typically involves patients under the age of 40. This patient is 55-years-old and the clinical findings demonstrate a conspicuous absence of antecedent upper respiratory symptoms. Nonetheless, neither mycoplasma nor viral pneumonia should be excluded from consideration. If possible these should be ruled out using the clinical history and laboratory parameters, especially in view of the non-diagnostic sputum gram stain[3].

The mono spot test is negative. The cold agglutinins are unremarkable at a titer of 1:8. Empirical therapy instituted at this time should include:

A. Erythromycin, 500 mg IV q 6 h.
B. Tetracycline, 250 mg IV q 6 h.
C. Aqueous penicillin G, 2 million units IV q 4 h.
D. Cephalothin (Keflin^{R}), 2 grams IV q 4 h.
E. Chloramphenicol, 1 gram IV q 6 h.

Answer: A. Erythromycin, 500 mg IV q 6 h.

This patient's clinical illness is highly suspicious of Legionnaires' disease pneumonia and empirical therapy should now be initiated with erythromycin lactobionate intravenously. Oral erythromycin and intravenous tetracycline have been shown to be effective against *Legionella pneumophila*. However, relapse and greater case fatality ratios have been reported with their use[4,5,6]. *In vitro* testing demonstrates sensitivity of the Legionnaires' bacillus to many commonly used antimicrobial agents[7,8]. However most antibiotics, with the exception of erythromycin and

rifampin, have been shown to be of little clinical benefit. The diagnosis of Legionnaires' disease is usually established retrospectively by paired acute and convalescent serum antibody titers generally obtained three weeks apart. A four fold rise in serum antibody titer is needed to confirm the diagnosis[4]. Serum antibody titers are measured using an indirect fluorescent antibody technique. A direct fluorescent antibody technique is available for rapid diagnosis using tissue or exudative specimens[9,10,11]. Unfortunately this procedure is not readily available in many community hospitals. Thus, empirical therapy for Legionnaires' disease is generally based on a high index of suspicion with a confirmed diagnosis made after therapy has been discontinued.

Legionnaires' disease was first described as a clinical entity following the July, 1976 American Legion convention in Philadelphia. A total of 221 confirmed cases with a mortality of 15% was subsequently described[12]. Since that time, Legionnaires' disease has been reported with increasing frequency involving epidemic as well as sporadic clusters throughout the United States and Europe[4,13,14,15,16,17]. The causative agent, *Legionella pneumophila* is a highly fastidious organism[18] requiring special enriched growth media, and is rarely seen on routine gram stains of clinical specimens[19]. Special stains[20] are available that may demonstrate the organism, however, this procedure is not routinely available in many community hospitals. Numerous clinical features of Legionnaires' disease have been described, and in the more severe forms multi-system involvement is common. These include hepatic and renal abnormalities as well as severe neurologic manifestations[21]. To date, the organism has not been directly isolated from organ tissue other than the lungs.

Classically, Legionnaires' disease presents with high fever, headache, myalgias, recurrent chills, pleuritic chest pain and dry cough in the absence of overt upper respiratory symptoms[4,13,15,21,22]. Frequently gastrointestinal complaints, most notable diarrhea, are seen. Neurologic manifestations when present can be quite dramatic. Patchy unilateral pulmonary infiltrates are usually seen on chest x-rays, but rapid bilateral progression throughout the pulmonary parenchyma may be seen. A high number of immature (band) forms, hypophosphatemia and hyponatremia are frequently described[15]. Smokers and immunosuppressed patients, particularly those with renal disease, appear to be predisposed to developing Legionnaires' disease[5,6]. Intravenous erythromycin should be continued for at least three weeks duration to avoid relapse, and frequently rifampin is needed for adequate therapy in those few patients that fail to respond to erythromycin alone[6].

In summary, we have presented a case of Legionnaires' disease pneumonia; a clinical syndrome that is being seen with increased frequency, and which may easily be overlooked, especially in sporadically occurring cases. Confirmation is generally made after therapy has been discontinued. We personally feel that Legionnaires' disease should be strongly considered in any patient who presents with the clinical symptoms described and empirical therapy initiated.

References 1. Gook EW: Pneumococcal pneumonia. Cecil "Textbook of Medicine" W.B. Saunders Company, Philadelphia, p. 349. 2. Olsson RA, Kirby JC, Romansky MJ: Pneumococcal meningitis in the adult. *Ann Intern Med* 55:545-549, 1961. 3. Murray HW, Masur H, Senterfit, LB, et al: The protean manifestations of *Mycoplasma pneumoniae* infection in adults. *Amer J Med* 58:229-242, 1975. 4. Broome CV, Goings SA, Thacker SB, et al: The Vermont epidemic of Legionnaires' disease. *Ann Intern Med* 90:573-577, 1979. 5. Gump DW, Frank RO, Winn WC, et al: Legionnaires' disease in patients with associated serious disease. *Ann Intern Med* 90: 538-542, 1979. 6. Saravoletz LD, Burch KH, Fisher E, et al: The compromised host and Legionnaires' disease. *Ann Intern Med* 90:533-537, 1979. 7. Thornsberry C, Baker CN and Kirner LA. In vitro activity of antimicrobial agents in Legionnaires' disease bacterium. Antimicrobial Agents and Chemotherapy 13:78-80, 1978. 8. Lewis VJ, Thacker WL, Shepard CC, et al: In vivo susceptibility of the Legionnaires' disease bacterium to ten antimicrobial agents. Antimicrobial Agents and Chemotherapy 13:419-422, 1978. 9. Broome CV, Cherry WB, Winn WC, et al: Rapid diagnosis of Legionnaires' disease by direct immunofluorescent staining. *Ann Intern Med* 90:1-4, 1979. 10. Cherry WB, Pittman B, Harris PP, et al: Detection of Legionnaires' disease bacteria by direct immunofluorescent staining. *J Clinical Microbiology* 8:329-338, 1978. 11. Lattimer GL, McCrone C, Galgon J: Diagnosis of Legionnaires' disease from transtracheal aspirate by direct fluorescent antibody staining and isolation of the bacterium. *N Engl J Med* 299:1172-1173, 1978. 12. Fraser DW and McDade JE: *Legionellosis Sci Amer* 241:82-99, 1979. 13. Eickhoff TC: Epidemiology of Legionnaires' disease. *Ann Intern Med* 90:499-502, 1979. 14. Ryerson GG, Lawwasser ME, Block AJ, et al: Legionnaires' disease. A sporadic case. *Chest* 73:113-115, 1978. 15. Kirby BD, Snyder KM, Meyer RD, et al: Legionnaires' disease. Clinical features of 24 cases. *Ann Intern Med* 89:297-309, 1978. 16. Jones FL, Beecham HJ, Denneky, JJ. Sporadic Legionnaires' disease. *JAMA* 239:640-641, 1978. 17. Friedman HM. Legionnaires' disease in non-Legionnaires. *Ann Intern Med* 88:294-302, 1978. 18. Freeley JC, Gorman GW, Weaver RE, et al: Primary isolation media for Legionnaires' disease bacterium. *J Clinical Microbiol* 8:320-325, 1978. 19. Wang WL, Blaser MJ, Cravens J, et al: Growth, survival, and resistance of the Legionnaires' disease bacterium. *Ann Intern Med* 90:614-618, 1979. 20. Dumoff M. Direct in vitro isolation of the Legionnaires' disease bacterium in two fatal cases. *Ann Intern Med* 90:694-696, 1979. 21. Swartz MN. Clinical aspects of Legionnaires' disease. *Ann Intern Med* 90:492-495, 1979. 22. Sharrar RG, Friedman HM, Miller WT, et al: Summertime pneumonias in Philadelphia in 1976. *Ann Intern Med* 90:577-580, 1979.

AFTER ALL THOSE YEARS OF HARD WORK SOMEONE FINALLY HANDS IT TO YOU.



In becoming financially successful, you've also become a prime target for malpractice suits.

And because even a frivolous malpractice threat can cause enough pressure to affect you at work, you may want to contact Insurance Corporation of America.

There are several steps we take, that other companies don't take, to relieve your worries and defend your reputation.

First, your initial phone conversation with ICA about a claim is with one of our licensed attorneys, seasoned in handling professional liability claims.

Soon after your call, we're discussing the claim face-to-face with you.

Because we act promptly on even a suspicion of a claim, we're able to end many malpractice threats before they become formal suits.

And if a claim is formally lodged against you, we'll fight until y get a favorable judgment or until all remedies by appeal or other proceedings are exhausted.

What's more, we never recommend that you settle just because could be less costly than fighting.

Why this strong commitment to defending you?

Well, in addition to being operated by attorneys, our medical liability division is founded by an attorney who is also a physician.

So we're not only highly professional. We're highly motivated.

And we hope that motivates you to contact us soon.

ICA

INSURANCE CORPORATION OF AMERICA
ICA Building, 2205 Montrose Blvd., Houston, Texa
77006, Phone 713/526-4863
A:XV Reinsurance Protection Provided.

Femoro-Infrapopliteal Bypass: An Alternative Approach For Limb Salvage

Femoro-infrapopliteal bypass to one or more of he leg vessels in the presence of an occluded or solated popliteal artery and a patent pedal arch ecreases the necessity for major amputation hen patients are followed up to five years or lon-er. One case is presented to illustrate many of the reoperative, operative, and postoperative fea-ures of this problem which is then discussed.

Bypass from the femoral artery to one or more f the leg vessels below the popliteal artery (ante-ior tibial artery, peroneal artery or posterior tib-al artery) can be a useful procedure for limb sal-age in the ischemic limb with popliteal artery cclusion. The first successful results with this rocedure in man were reported by McCaughan in 961.[1] He used freeze-dried arterial homografts nd nylon prostheses and had a 75% patency rate t the time of discharge and an average patency of ine months. Since then, there have been several eports[2,15] with good follow-up which have estab-shed the success of this type of vascular recon-truction.

Case Report

A 62-year-old white male had severe general-ed peripheral vascular disease and at the time of is presentation in January 1979, had already ndergone the following procedures: left carotid endarterectomy, aortofemoral bypass, left femoro-posterior tibial bypass and right femoro-popliteal bypass. He had severe rest pain in his left foot requiring narcotic analgesia and also had two non-healing ulcers on his left foot. His admission ankle/brachial Doppler indices of the left leg were popliteal: 0, dorsalis pedis (D.P.): 0, and posterior tibial (P.T.): 0.25. Arteriograms revealed an isolated left popliteal artery with occlusion of the anterior and posterior tibial arteries and reconstitution of the peroneal artery with a good pedal arch. The patient underwent a left polytetrafluoroethylene (PTFE) femoroperoneal bypass. Operative arteriogram revealed bidirectional flow at the anastomosis and a good one-vessel run-off (Fig. 1). The post-operative Doppler indices were D.P.: 0.9 and P.T.: 0.9. The patient did well for three and one-half months, partially healing his foot and ambulating with a cane. He then returned with severe rest pain and an occluded graft. The left popliteal pressure was 80 mm with an index of 0.57. He underwent a successful left below-knee amputation and is presently ambulating and using a prosthesis well.

Discussion

The indications for a distal bypass should be very stringent because the operation is long and tedious and with early graft failure, a major amputation may become immediately necessary. Therefore most vascular surgeons would only consider as candidates those patients who have disabling rest pain and/or tissue loss limited to the

om the Department of Surgery, University of Kentucky Medical enter, Lexington, Kentucky 40536



FIG. 1: Operative arteriogram showing anastomosis of graft to left peroneal artery with good bidirectional flow.

toes and distal foot. Some patients with severe claudication that interferes with their occupation might be candidates, if sufficient time had elapsed for maximum collaterals to form. This type of reconstruction should be considered also in patients who are poor candidates for limb prostheses such as those who are paretic on the contralateral side, blind, or would then become a bilateral amputee.

Femoro-infrapopliteal bypass would be contraindicated if the leg were paretic or otherwise useless, if the existing necrosis already required at the least a below-knee amputation, and if the patient's longevity is expected to be less than one year.[6,16] Diabetes has not been a contraindication.[2,3,7,8,11]

Arteriography must demonstrate patent vessel(s) in the leg **and** a patent pedal arch. Sometimes this requires a long delay between films in order to allow the dye to reach these vessels by collateral flow.[3] More dye than usual may have to be used. Lateral views of the foot should be obtained in order to properly see collaterals. If there are other small vessels opacified in the area of one of the trifurcation vessels, that artery is not patent.[17] Ischemic hyperemia may aid in visualization of the distal vessels.[4] Occasionally intraoperative arteriograms of the distal vascular bed wi demonstrate patent arteries not seen on preo erative studies, especially when the vessel has n been opacified but a pulse has been heard in it b the Doppler.[5]

If two or three of the distal vessels are pater the largest one should be chosen for the bypa with the possibility that the other vessels will perfused through collaterals.[16] Saphenous vein the graft material of choice, but the length of ve available should not dictate the level of the ana tomosis. Composite grafts of two or more veins of dacron or PTFE plus vein may be used.[7,9,16]

Incisions in the leg should not be in the incisi line for a below-knee amputation. The anteri tibial artery is best located through an ant rolateral incision; the posterior tibial artery found with a medial incision; and the perone artery may be located either medially or lateral The dissection must be meticulous in order preserve all branches and because of the tight adherent venae comitantes.

Usually the distal anastomosis is perform first, utilizing a large arteriotomy in the midpo tion of the longest open segment of the recipie artery. Prolene suture of 6-0 or 7-0 size is pe ferred to make the cobra-head anastomosis. T graft is then carried through a superficial or de tunnel to the groin, where the proximal ana tomosis of graft to femoral artery is accomplish in a similar manner. If needed, the proximal ana tomosis may serve as a profundoplasty, thus assu ing maximum flow through collaterals to t leg.[16,17]

Operative arteriography is essential in order detect technical problems and to assure good bi rectional run-off at the distal anastom sis.[5,7,8,10,16,17] Palpation of pulses and pressures Doppler are useful in the operating room as w as postoperatively. If graft patency is in doubt the postoperative period, arteriograms should performed to delineate the problem, and then t patient should be returned to the operating roo for an attempt at thrombectomy.[16] Post-operati heparin therapy is not routine.[7,16] As with oth vascular procedures, antibiotic coverage shou be provided and the drug selected should specific for any organisms isolated preoperative from lesions on the leg or foot.[16]

Operative mortality averages 3% with patie most frequently succumbing to myocardial infa

on or stroke. Early graft thrombosis in various eports ranges from 15-30% at one month.[16] If ood bidirectional flow is achieved at the distal nastomosis, flow through the femoro-infrapopli-eal graft should equal that through a femoro-opliteal graft with good outflow.[3,7,17] Because esistance to flow through a conduit is directly elated to its length, and because these grafts are sually quite long, some authors have advocated oncomitant lumbar sympathectomy,[6,7,8,10] multi-le sequential anastomoses,[5] intraoperative vaso-ilators and keeping the foot warm during the rocedure in order to decrease resistance. The ajor causes of early graft failure seem to be an cluded pedal arch (which decreases run-off and reatly increases resistance through the graft[11,17] r an inadequate vein.[7,10,15,17] There is some evi-ence that femorotibial grafts remain patent long-: than femoroperoneal grafts, and thus there are ewer secondary procedures following femoroti-ial grafts.[12,14,16] Also, as a group, patients who ad undergone previous vascular procedures have wer graft patency.[7]

With early graft failure, even after secondary erations, a major amputation may be required oner than otherwise predicted, and the potential r a below-knee amputation may be decreased.[15] owever, long-term graft patency (usually at five ars) ranges from 44-65%. Late occlusion is gen-ally secondary to progression of atherosclerosis the inflow or outflow vessels, degeneration of e graft, or stenosis of anastomotic sites.[16] Even ore importantly the rate of long-term limb sal-ge is greater than the incidence of graft patency. he graft is patent long enough to allow healing of isting lesions and to allow further collateraliza-n. Even if the function of the operated limb is creased, ambulation is better than with a pros-esis. Any toe amputations or reconstructive ocedures that need to be done on the foot ould be performed soon after a successful graft that healing will take place before a possible te graft occlusion.[12,16] Nicholas[13] compared the sults of patients who had femoro-infrapopliteal afts to those who did not undergo vascular re-nstruction and found that at one year, 80% of ose patients alive who had undergone the bypass d no amputation whereas only 34% of those in e unoperated group had no amputation. He also owed that 32% of those with no reconstruction mained in the hospital for greater than 60 days, whereas only 15% of those with grafts remained hospitalized longer than two months. He also found that only 47% of patients with a major amputation were able to walk again.

Summary

Although the operation is long and tedious, when strict indications are met, femoro-infrapopliteal bypass often salvages an extremity considered doomed to amputation. Although amputation may be the end result with early graft failure, late graft failure does not mean loss of limb. Before amputating a potentially salvageable extremity, arteriography should be obtained to see if vascular reconstruction is a viable alternative.

References 1. McCaughan JJ Jr: Successful arterial grafts to the anterior tibial, posterior tibial (below the peroneal), and peroneal arteries. *Angiology* 12:91-94, 1961. 2. Reichle FA, Rankin KP, Tyson RR, Finestone AJ, Shuman CR: Long-term results of femoroinfrapopliteal bypass in diabetic patients with severe ischemia of lower extremity. *Am J Surg* 137:653-656, May 1979. 3. Bernard VM, Ashmore CS, Evans WE, Rodgers RE: Bypass grafting to distal arteries for limb salvage. *Surg Gynec Obstet* 135:219-224, Aug 1972. 4. Imparato AM, Kim GE, Madaziag M, Havenson S: Angiographic criteria for successful tibial arterial reconstructions. *Surgery* 74:830-838, Dec 1973. 5. Edwards WS: Limb salvage by multiple sequential femoral-tibial arterial grafting *IN Gangrene and severe ischemia of the lower extremities*, Bergan JJ and Yao JST (eds.) Grune & Stratton, 1978. 6. Wright RS: Aortoiliac and peripheral occlusive disease: surgical management *IN Vascular Surgery*, Edwards WH (ed.). University Park Press, 1976. 7. Garrett HE, Kotch PI, Green MT, Diethrich EB, DeBakey ME: Distal tibial artery bypass with autogenous vein grafts: an analysis of 560 cases. *Surgery* 63:90-106, Jan 1968. 8. Noon GP, Diethrich EB, Richardson WP, DeBakey ME: Distal tibial arterial bypass. *Arch Surg* 99:770-775, Dec 1969. 9. Tyson RR, Reichle FA: Femoro tibial bypass. *Ann Surg* 170:429-434, Sept 1969. 10. Baird RJ, Tutassaura H, Miyagishima RT: Saphenous vein bypass grafts to the arteries of the ankle and foot. *Ann Surg* 172:1059-1063, Dec 1970. 11. Kahn SP, Dent TL, Kraft RO, Fry WJ: Femorotibial vein bypass. *Arch Surg* 107:309-312, Aug 1973. 12. Reichle FA, Tyson RR: Bypasses to tibial or popliteal arteries in severely ischemic lower extremities. *Ann Surg* 176:315-320, Sept 1972. 13. Nicholas GG, Barden CF, Berkowitz HD, Roberts B: Reconstructive surgery distal to the popliteal trifurcation. *Arch Surg* 107:652-656, Nov 1973. 14. Dardik H, Ibrahim IM, Dardik IT: The role of the peroneal artery for limb salvage. *Ann Surg* 189:189-198, 1979. 15. Szilagyi DC, Smith RF, Elliott JP, Hageman JH, Brown F, Dietz P: Autogenous vein grafting in femoropopliteal atherosclerosis: the limit of its effectiveness. Presented at the Society for Vascular Surgery, June 30, 1979. 16. Bernhard VM: Bypass to the infrapopliteal arteries *IN Vascular Surgery* Rutherford, RB (ed.). W B Saunders Co, 1977. 17. Hershey FB and Calman CH: *Atlas of Vascular Surgery*. C V Mosby Co, 1973.

SALLY SHERARD MATTINGLY, M.D.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

NEW
PRODUCT
INFORMATION

clinical significance



of constipation

ROHER
WILLIAM H. RORER, INC.
Fort Washington, PA 19034

Constipation acute or chronic

Constipation may be caused by conditions affecting the filling and emptying of the rectum.

Inadequate filling

Interference in propulsive contractions

Impairment of smooth muscle contractility

Obstruction of the lumen





Inadequate emptying

Interference in the stimulation of the defecation reflex

An additional complication

Self treatment—use and abuse of laxatives

Treatment of underlying disorders is critical... Relief of constipation is essential

Perdiem™...distinctive!

A unique blend of natural vegetable derivatives For comfortable and safe relief of constipation

Psyllium

- A natural source of hydrophillic callaids
- Strengthens stimulus ta defecate by increasing indigestible residue
- Helps praduce soft, hydrated, well formed staal



Senna

- Produces mild peristaltic stimulatian
- Helps prapel bulk thraugh calan



A unique granular formulation

- Na mixing or chewing
- Gronules are placed in mouth and swollawed with full glass af beverage
- Helps break cathortic habituatian
- Helps establish narmal defecatory reflexes and regular bawel rhythm

Jahn Maerz, M.D.
Medical Director
W. H. Rarer, Inc.
Fort Washington, PA 19034

Dear Dr. Maerz:

Yes, I would like to receive a supply af Perdiem™ starter samples far my patients.

Dr. _____

Address _____

City _____

State _____

Zip _____

Specialty _____

SJ-312

New Perdiem™

Prescribing Information

ACTIONS: Perdiem™, with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION: Natural vegetable derivatives: A unique blend of psyllium and senna (Plantago Hydrocallaid with Cassia Pod Concentrate).

INDICATION: For relief of constipation.

PATIENT WARNING: Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours): reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiavascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN: From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

HOW SUPPLIED: Granules; 100 gram (3.5 oz.) and 250 gram (8.8 oz.) canisters.



Made in West Ge

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 29 Ft. Washington, PA.

POSTAGE WILL BE PAID BY ADDRESSEE

William H. Rorer, Inc.
500 Virginia Drive
Ft. Washington, PA. 19034

Attn: Marketing Services

ROER

WILLIAM H. RORER
Fort Washington, PA 19034

OPINION

Physician, You're Losing

Destiny is not a matter of choice;
it is not a thing to be waited for,
it is a thing to be achieved.
Wm J. Bryan

The practice of medicine, as we know it, is being eroded by the courts, state and federal governments, powerful regulatory agencies, consumer interest groups and our own professional associations. We stand hapless complaining about the government and courts and we won't fight. Even our own hospitals are taking a few swings, frequently hitting below the belt. Yet with only a faint moan, we resume our busy activities. Our once important role in the patient-physician-hospital relationship is rapidly being negated. As pressures mount, consumers, physicians, hospitals and government jostle hoping to gain power and control in the evolving health delivery system. Like England, Canada, Sweden, and others, the physicians will lose. His functional level in the medico-system will stabilize as a union member professional, negotiating for salary and benefits. The future is bleak, but not hopeless. Some control over the destiny of medicine may be gained if we understand the issues and explore possibilities.

What is a Hospital?

The hospital is a social institution with a social mission. It has only one function, to care for the sick. In performing this function, other activities evolve, such as research, teaching, jobs and improved methods of diagnosis and treatment, yet these are ancillary and in the end its sole purpose for existence is to prescribe to the ill. Through the wisdom and advice of physicians the hospital assimilates materials; i.e., x-ray and laboratory equipment, operating room supplies, administrative and maintenance paraphernalia. These materials in a real sense are provided by the paying patient who pays the hospital's bills, and in a moral sense are owned by the public who build the hospitals with donations and time. Ownership through its administration supplies personnel trained to use, maintain and replace the equipment; it also attempts to establish fiscal balance and personnel order within the system, but it is the patient through his needs and under his doctor's council that directs the use of the materials, not ownership, not administration, nor the physician.

Ownership, in fact, and by law, possess these hospital artifacts, but a dilemma exists in nonprofit public hospitals. The courts frequently find in favor of the public when disagreements arise between the course and action of the governing body and the public it should serve. Is it that the governing board of a public hospital is merely a custodian of the legal documents of ownership, and its power if misused can quickly be relegated to those more responsible? I believe this is so.

A Tragic Trend

Mr. Neil Chayet, a partner in the legal firm of Chayet and Sonneried, Boston, Massachusetts, speaking before the Society of Internal Medicine held in Cambridge, Massachusetts, described the development of the corporate model in hospitals as "a tragic trend over the past few years with a single purpose: the subjugation of the physician and his removal from a position of authority in the hospital."

In assuming the legal position of a hospital corporation, the governing body of the corporation receives its authority from corporate law. Corporations have inherent powers as a result of their organization. Historically, these powers were developed to protect private enterprise and to give to a company authority and legal responsibility to conduct the business for which it was organized. This power was never intended to be used as a vehicle of authority for social institutions such as hospitals. The governing body of a corporation behind the armor of corporate law has the right to make all decisions necessary to carry on business. This is unfortunate.

The authority the governing body receives from corporate law may be delegated, as it wishes, to management and to physicians. The prescriptive functions of a physician which are legally consummated in the state medical license becomes subserviant to the authority of the hospital when the hospital is a corporation and the physician practices in the hospital. Clearly the physician is becoming an employee of the hospital, if not financially, certainly administratively and legally, when he enters a corporate setting. Hospitals do not enforce this authority for fear of medical staff reprisal but can, if they desire, direct the care of the hospital patient.

The single reason for the incorporation of nonprofit hospitals is power over the medical staff: medical staff control. There are no other distinct advantages over partnership or propriety business arrangements. The incorporation of a nonprofit hospital is contrary to the definition of its function, to serve the public and sick in all its endeavors.

Although we may not be able to unincorporate that which is incorporated, we can deal with this difficult business arrangement. The American Hospital Association strongly encourages contracts with **all** physicians, and now have listed 18 specialists as hospital based. It is my belief that physicians should not enter into contractual agreements with hospitals. In essence, when a contract is signed, the physician acknowledges that a nonprofit hospital controls and has authority to say how public owned materials are to be used. The medical staff has in its bylaws a contract with the hospital and additional written agreements should be shunned. If the physician desires a written agreement, a simple letter of designation and compensation will suffice:

> Dear Dr. DoMore:
>
> Dr. DoMore is the Director of the Department of Overactivity and will respect the medical staff and hospital bylaws and the ethics of his professional associations. His compensation will be $1 per year.
>
> Chairperson of the Board

I have seen too many time-consuming agreements between ill advised administrators and physicians fly in the face of the physician when the Board later took issue with certain areas of the agreement. If a more complex agreement is desired by the physician, spelling out each miniscule function, the agreement should be consummated between the Chairperson of the Board and the physician.

The enforcement of an agreement once reached is also difficult. A court battle between physician and hospital is damaging to the reputations and public images of both, no matter who is the victor. I recently spoke with a physician who had won a contract dispute. I assure you this is not desirable on either account. The best solution is the involvement of medical staff representation in all agreements. A copy of the agreement should be submitted to the medical executive committee for its comments and as a record in its minutes. The medical executive committee can be the enforcer, and yearly, should review, in executive session, complaints by the medical staff. Again, the best arrangement is **no** agreement.

A New Authoritarian Emerges

Every hospital has two divisions: those who directly care for the sick, and those who aid in this function. The medical personnel, i.e., nurses physicians, technicians, dieticians, therapists

etc., are the center of this process. Spiraling outward are ownership and management who exist only to aid in completing the primary task of diagnosis and treatment. How did this system evolve?

Late in the 19th century the hospital, as we recognize it, emerged. Initially, the hospital was a controlled environment where a physician could bring his patients for close observation and treatment. The medical staff had direct input into all functions of the hospital and was the ultimate authority of the hospital. The medical staff, with the governing bodies approval, appointed one nurse as hospital supervisor. She was chosen for her strong will, knowledge, and forceful leadership. She administered not only the nursing staff, but other areas of the hospital as well, and was appropriately called "warden." The governing body also worked in the hospital frequently in charge of finances, building maintenance, and personnel. This basic hospital organization continued into the 1920's.

During the twenties, today's administrative practices were born with the introduction of the "business manager." The once physically present trustees retreated to a more inconspicuous, indirect hospital role and delegated equal authority to the nursing supervisor and business manager. Unfortunately, split authority was not conducive to solidarity and in the early 1930's the first "executive directors" appeared. Often chosen from the ranks of the medical staff, the position could be held by a trustee, minister, or nurse. The job title was "superintendent," with authority over all nonphysician personnel and equal accountability to the medical staff and trustees for the performance of the hospital. Prior to 1950, the hospital was run at the discretion of the medical staff and was the source of those necessities required to diagnose and treat his patients. This was to change.

The mid fifties brought a new symbol of power and arrogance in medicine, the new hospital administrator. Programed by the American Hospital Association, the Catholic Hospital Association, and related organizations, and sensing a power struggle between ownership and the medical staff over the direction of the hospital, he convinced the governing bodies that only he could direct the hospital and that all hospital functions, medical and otherwise, must be orchestrated through him. Since the Board had retreated from direct hospital involvement, their insight into hospital functions and medical staff problems was supplied almost entirely by the administrator. Caught between the demands of the medical staff and the desire for more public recognition as owners, administrators groped for more authority and control of the medical staff. In many institutions, he even convinced shortsighted Boards that he should be a Board member. The once important direct medical staff input into the organization structure diminished and in the early and mid 1970's all but vanished. Nonprofit corporations were in, physicians were out. Trustee action was based primarily upon nonmedical advice supplied by nonmedical personnel and as might be expected, hospital after hospital fell into bankruptcy. The pendulum of authority had swung completely into the arms of the trustees and delegated to the executive director. Thousands of unused beds now lie strewn throughout this country, many built on the advice of the new powerful administrators.

One of the more important contributors to our present day organizational dilemma are the teachings of a former president of the American Hospital Association, Everett A. Johnson, Ph.D in Hospital Administration. He is sought after as a lecturer and auditor in hospital administration circles. His struggle for complete despotic hospital control for the administrator is exemplary and may have set back hospital organization a decade. The following fundamental principles are taken from his writings and represent current thought among most hospital administration leaders:

1. The administrator will be known as the President.
2. The Board of Trustees will be abolished or at least its authority weakened.
3. The administrator will be President of the Board of Trustees.
4. The chief of the medical staff will be selected by the President of the hospital and paid by the hospital. This can be accomplished by first appointing a medical education director and later edging him into the position of paid chief of the medical staff.
5. Salaried physicians will occupy department head positions.
6. The ultimate responsibility of who is per-

mitted to practice in the hospital will be the President's.

7. Most medical staff committee functions will cease. These functions will be accomplished by paid hospital physicians at the direction of the President.

8. The physician's time in the hospital will be scheduled.

9. The President will negotiate both the hospital's and physician's financial needs.

Hospital administrators vigorously applaud this "ideal hospital". Medical staffs and trustees should be alert and fend off any attempts to institute this or similar plans.

Our Lost Commodity

Years of medical staff lethargy have led to mental stagnation. We have lost control of a priceless commodity, which earmarks years of training, tests, and finally, culminating in a legal license to practice medicine. That commodity is the authority and power over our patient's destiny. A group of physicians, realizing that all would soon be lost, demanded representation, voice, and vote on the board of trustees; if you will, a share of the authority of the corporate board and a voice as to its use. It has taken years to gain the control now visible in the corporate boards, and trustees are reluctant to share this power, even if it will insure better hospital relations and improved medical staff-trustee communications. This communication must be re-established now. We are in the shadow of socialism, and physician representation at the highest level of hospital organization is imperative.

The Joint Commission of Accreditation, in its Accreditation Manual for Hospitals, 1980 Edition, recognizes the right of physician representation and vote on the trustee boards. The mere presence of a nonvoting physician at board meetings is insufficient, and adequate representation can only be accomplished as a voting member. How to accomplish this right depends on the receptiveness of the trustees and, of course, on how administrators present this situation to the boards. As a wise and close friend once said, "A victory with honey is sweeter than a victory with force." Gentle coercion and open well-meaning communication are preferred. In the end, there must be physicians on the board of trustees.

As physicians regain their rightful position in the ranks of hospital trustee members, inadequate administrators and ineffective trustees will be recognized. The cloak of secrecy which embalms many trustee and administrative decisions will be cast off. In this era of cost containment and sensitive consumer awareness, decorative hospital items must be shelved and only essential materials purchased and necessary personnel employed.

Segregated Public Hospital Boards!

Another injustice which should be addressed is the makeup of certain hospital boards. I find with rancor that non-taxpaying hospitals built with community and church donations, frequently with federal assistance (Hill-Burton Funds), and who are sustained by over 50% of their daily income generated through federal government payments (Medicare, etc.) have, in fact, segregated boards.

Baptist institutions are a prime example. The bylaw charter for non-church Baptist institutions, i.e., colleges, hospitals, and nursing homes, states only Baptists may serve on the Boards. When it is time for a new building addition or new equipment, donations are sought and accepted from every source and everybody, and camaraderie abounds. The new addition, when finished, is dedicated to the public and for the public, yet the public will have little say in its government or future.

The Joint Commission recognizes this situation as a real problem in hospital systems. It states:

"The governing body . . . should include a broad representation of the community served by the hospital, and its members should be selected for their ability to participate effectively in fulfilling the governing bodies responsibilities."

Many deserving community leaders cannot serve because they are Baptist or Catholic or Jewish, and are often relegated to the more unimportant role as "advisors." Physicians, responsible community leaders, and board members should fight for integration, demanding the best qualified individuals regardless of race, religion or creed. In the months ahead, we will need the best, if the hospitals and physicians are to independently survive.

Report Cards?

The American Hospital Association has developed a program called the Quality Assurance Program. It sounds innocuous, but if closely read, it becomes frightful. In order to insure direct accountability to the board of directors, the line of authority flows downward through administrator and medical chief into the medical staff. To assure the nonmedical board of trustees staff quality, a written evaluation of each physician's attitude, medical capability, conduct, use of hospital facilities, and ability to get along with hospital personnel, including administration, will be recorded by medical staff representatives. Hospital personnel will have input into the report card through administrative debriefing sessions, for many sections of the evaluation is the relationship between the hospital and physician.

I can see the report card of a tired and weary surgeon after a tough O.R. case, when several usually reliable functions malfunction, and calm blends into rage as he attempts to rectify an unnecessary emergent situation. The offended O.R. nurse will have her day. Since report cards are not privileged information, the plaintiff's attorney will need little else. The title Authority Assurance Program is more applicable.

The American Medical Association, in part, has forsaken us by agreeing that the medical staff and administrator are capable of keeping honest, unbiased report cards on physicians, and the AMA appointees, in concert with the American Hospital Association representatives, have established written evaluations as a significant part of Joint Commission standards. The Joint Commission also acknowledges that physician continuing education is a necessity and that, and get this, an appraisal of each physicians' mental capabilities be obtained prior to the yearly medical staff reappointments. Get ready psychiatrists, here we come. Many of our own speciality boards cannot agree on acceptable continuing education standards and are still wrestling with this important problem.

Physicians are being humiliated by periodic evaluations and intimidated by a web of rules, requirements, and standards. Administrators, assistant administrators, and trustees will be observing to make sure these requirements are honored. The threat of termination of privileges by non-renewal will quiet the most independent physician, and he, like many of his colleagues, will march in place. Medical staff bylaws are **self-governing** principles and should not be used by others to govern us. If, by chance, report card standards have been included in your bylaws, expel them now; if not, for your sake, don't.

Physician, where is your Dignity? We have let this go on much too long. We must fight for our rights, first with honey, then if that doesn't work, the best legal council available.

C. Dale Brown, M.D.

Dr. Brown is an Associate Radiologist at Lourdes Hospital, Paducah, Kentucky, and Assistant Clinical Professor of Radiology, Vanderbilt University, Nashville, Tennessee

V-Cillin K®

penicillin V potassium

is the most widely prescribed brand of oral penicillin



Tablets
125, 250, and 500 mg*
Oral Solution
125 and 250 mg*/5 ml

V-Cillin K*
penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin. [102175]

***Equivalent to penicillin V.**

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana 46206

900416

The Audit

THE medical audit has now become a fixture and we must try to extract as much good from it as possible. Its potential for increasing excellence of medical care is good—the potential for helping to restrain medical costs may be frustrating but we should use it as carefully and thoughtfully as we can to try to effect this.

Through the audit we can examine any illness or condition, any procedure, any operation, any therapy, any test for properness of application, over or under use. The results are frequently reassuring and we find that a hospital's particular population of doctors, patients, nursing and other help are performing with an excellent standard. When the findings are substandard and the definitions of error are tangible, the audit can make recommendations to the staff or department for corrections. Repeat audits can look for rectification and make further recommendations. A thoughtful, deliberate, orderly means is in our use for keeping our particular hospital on track and performing efficiently and effectively.

In conducting the audit, prior definitions of all pertinent conditions have to be made so that the series can be examined for fitting the conditions. If too few of the series fit the conditions, either the series is deficient or the conditions not appropriate. The conditions can be adjusted so that the series will fit and we can learn the practical and appropriate way to look at a problem.

An example might be the observation of 50 serial patients with chest pain examined as hospital outpatients and released. One could examine each for having an EKG, chest x-ray and cardiac enzymes. If more than half had EKGs, fewer than half had chest x-rays and fewer than a quarter had enzymes, does this mean that more than 50% have been evaluated inadequately? The possibility exists that most or all were adequately evaluated and that the most cost effective and efficient means were used to reach a conclusion in each case. The possibility also exists that the doctors making each judgement might feel constrained to order more of the tests to improve the appearance of the audit.

Such a "cookbook" approach could conceivably result from audit activity. We must continue to strive to use the audit for the benefit of the patient.

AEO

Morris E. Chafetz, M.D.,
Founding Director of the National
Institute on Alcohol Abuse and Alcoholism,
and Chairman of the Board,
Health Institutes,
is pleased to announce
Health Institutes' first private
residential alcoholism treatment facility,

FENWICK
HALL

in Charleston, South Carolina.

John H. Magill, Executive Director.
Layton McCurdy, M.D., Medical Director.
Phone 803-559-2461.

Selected Aspects
in
Rheumatic Diseases
University of Louisville
Health Sciences Center Auditorium
April 17-18, 1980

Guest Faculty:
George E. Ehrlich, M.D., F.A.C.P.
Professor of Medicine
Professor of Rehabilitation Medicine
Temple University
Director of Rheumatology
Albert Einstein Medical Center and
Moss Rehabilitation Hospital
Philadelphia, Pennsylvania

Ronald J. Saykaly, M.D.
Assistant Professor of Medicine
Acting Director, Division of Rheumatology
Department of Medicine
University of Kentucky College of Medicine
Lexington, Kentucky

Program Director:
Norman A. Cummings, M.D., F.A.C.P.
Professor of Medicine
Director, Arthritis Center
Chief, Division of Clinical Immunology
and Connective Tissue Disease
Department of Medicine
University of Louisville
School of Medicine

11 hours Category I credit
11 Prescribed hours, AAFP

For further information: (502) 588-5329

Tenuate® Ⓡ
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary
INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.
CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).
WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence*: Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.
PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.
ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema. *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.
DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M.: A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

Merrell

9 4672 (Y957A)

Overweight may not always be simple... complications can develop.*

Complicated or not...

Tenuate® Dospan® ©IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

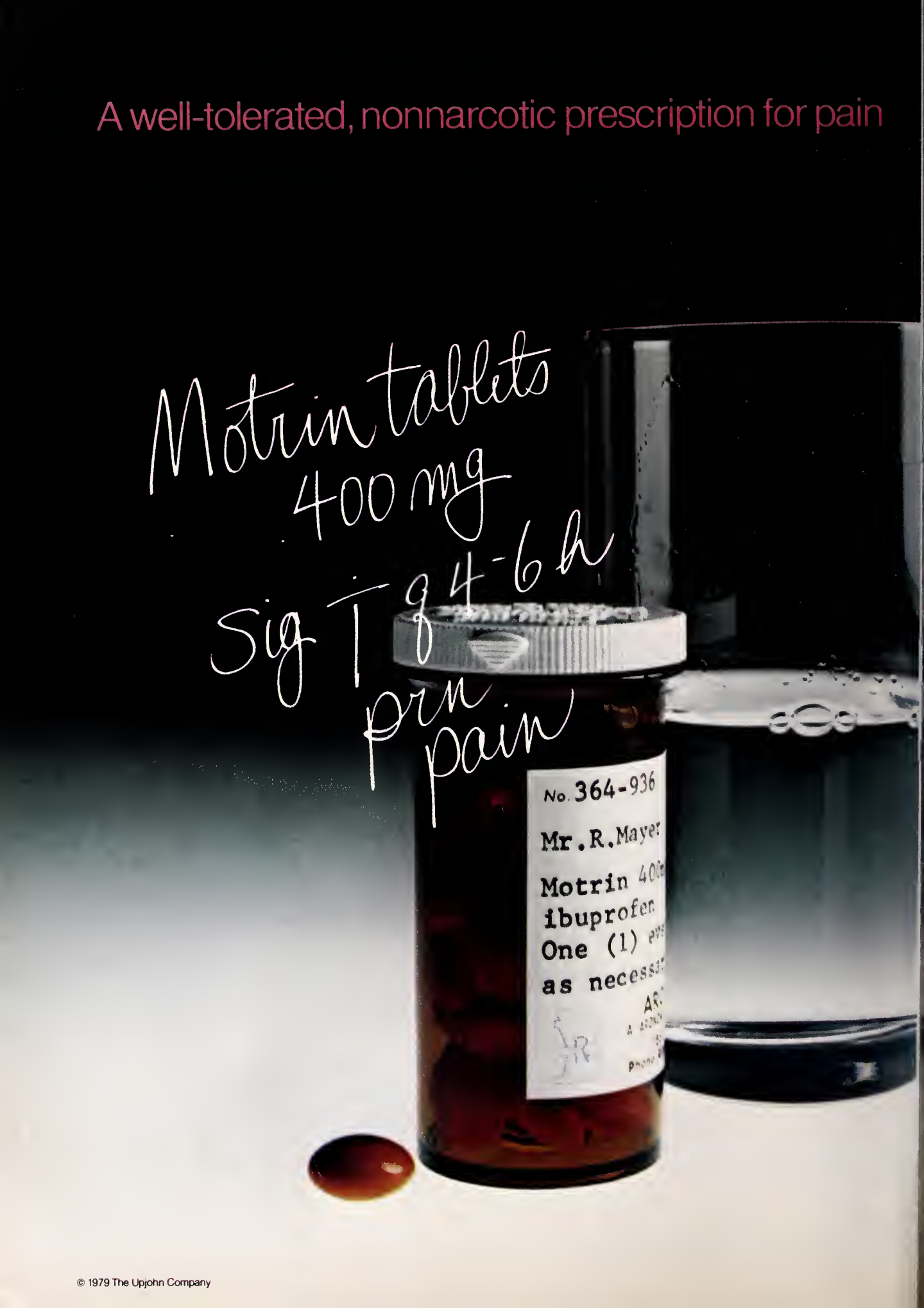
Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.

A well-tolerated, nonnarcotic prescription for pain



© 1979 The Upjohn Company

Motrin® now proved an effective analgesic for mild to moderate pain

Motrin 400 mg provided greater relief of pain than did propoxyphene 65 mg in controlled clinical pain studies.

Time after drug administration (hour)		.5	1	2	3	4
Mean relief-of-pain scores* (No. patients reporting)	Motrin 400 mg ibuprofen	.89 (108)	1.25 (108)	1.36 (108)	1.28 (107)	1.19 (106)
	Darvon 65 mg propoxyphene	.66 (100)	.99 (99)	1.13 (96)	.99 (96)	.80 (96)
Statistical significance		$p<0.02$	$p<0.01$	$p<0.05$	$p<0.02$	$p<0.002$

*0 = No relief 1 = Partial relief 2 = Complete relief

Data on file at The Upjohn Company

Motrin demonstrated statistically significant greater relief of pain than did Darvon at all time intervals.

Motrin 400 mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming
- Rapid analgesic action • Indicated in acute and chronic pain
- Well tolerated. The most common side effect with Motrin is mild gastrointestinal disturbance.

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

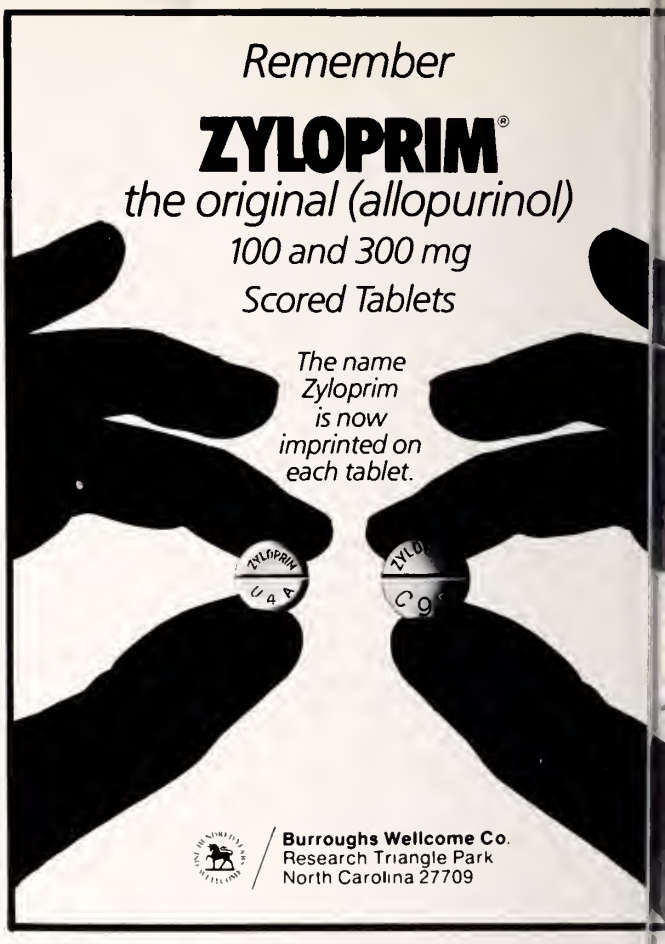
Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

MED B-4-S

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA





A Link in the Chain

Auxiliary



Mrs. John Bates

The Auxiliary to the Kentucky Medical Association will hold its 58th Annual Convention April 21-23 at Lake Cumberland State Park in Jamestown, Kentucky. Convention is a time for sharing ideas—a great learning experience—and there is the added bonus of meeting with friends from all over the state. This is an invitation to all physicians' spouses to come join us!

The Auxiliary is honored to have as its guest the Southern Regional Vice President of the American Medical Association Auxiliary, Mrs. John Bates of Cuthbert, Georgia. Mrs. Bates will be addressing the House of Delegates as well as installing the officers for the 1980-81 year.

Another special guest will be Doctor Robert Howell, Louisville, who is President of the Kentucky Medical Association. Doctor Howell will speak at the AKMA Luncheon on April 22. In addition, Mr. Joe Washington, Fort Knox, who has recently been selected Kentucky's Teacher of the Year, will discuss his innovative work with all age groups in the area of physical fitness at the AKMA Dinner that evening.

CONVENTION 1980

Prescriptions for Healthier Living

MONDAY, APRIL 21 CST

1:00 - 3:00 p.m.	Budget Meeting
3:00 - 5:00 p.m.	Long Range Planning Committee Meeting
5:00 - 6:00 p.m.	Program Development Committee Meeting

TUESDAY, APRIL 22

9:00 a.m.	Registration and Set up Exhibits
10:00 - 11:15 a.m.	Pre-Convention Board Meeting, 1979-80 Board Members
11:30 - 12:45 p.m.	Luncheon Guest Speaker, Dr. Robert Howell, KMA President AMA-ERF Auction
1:00 - 4:30 p.m.	AKMA House of Delegates Session
6:00 - 7:00 p.m.	Reception Honoring 1980-81 AKMA Officers, Jefferson County Hostess
7:00 p.m.	Dinner Honoring Past AKMA Presidents and 1979-80 County Presidents Installation of 1980-81 AKMA Officers Mr. Joe Washington, Teacher of the Year, discussing ways to "Shape Up For Life"

WEDNESDAY, APRIL 23

8:00 a.m.	Breakfast
9:00 - 11:00 a.m.	Post Convention Board Meeting, 1980-81 Board Members
11:00 - 12:00 noon	Check-out time (All times CST)

MEAL RESERVATIONS, PRE-REGISTRATION, AND HOTEL RESERVATION INFORMATION IN THE MARCH ISSUE OF *THE BLUEGRASS NEWS*

"One trouble with the future is that it usually arrives before we're ready for it." —*Arnold H. Glasow*

DON'T PUT OFF LOOKING OVER YOUR DISABILITY NEEDS.

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

Sleep Less, Live More

Everett Mattlin, J.B. Lippincott Company, Copyright 1979, 192 pages, $9.95

This easily readable primer of sleep disorders hits the book market at a time when the dizzying events of politics, economics and foreign affairs demand our increasing attention. How enticing it is to be seduced by the spectre of more time for work and play. Mr. Mattlin outlines in a quasi-scientific fashion the history of sleep disorder research, the fundamentals of differential diagnosis and the structure of current studies in sleep problems. Using current well-known people as models, he embellishes the book—unnecessarily—with personal sleep histories and triumphs over long hours of repose. Three-fourths of the book then deals with descriptions of terminology and to the author's credit with dispelling popular misconceptions of sleep as an entity.

The "how to" cookbook style of sleep reduction is advertised boldly in the title. Yet there was a disappointingly small section on the mechanics of a program for achieving this end.

Nevertheless, the laymen and professional will be educated by this view of one of life's functions. To credit this book with scientific laudits is to miss the purpose of the author. Like the gadfly of old, he strikes a tantalizing yearn for a more constructive use of our time—a worthwhile pursuit for all of us.

STEPHEN Z. SMITH, M.D.

Vitamin C Against Cancer

H.L. Newbold, M.D., Stein and Day, Copyright 1979, 320 pages, $10.95

This bellicose title suggests that Vitamin C should take its place in the anti-cancer armamentarium. Whether one can define the role Vitamin C has from reading this book is a matter for conjecture.

Dr. Newbold sanctifies the Vitamin C philosophy with interviews and reflections of several well known scientists and physicians. Interspersed are unnecessary intimacies about the respondent's personal habits and the author's reasons for admiring them. Although these interviews were easily readable, the information resulting could be readily capsulized.

Nutritional propaganda is inserted for the reader's attention and several chapters extend to ennui the case for shaping up the digestive path to health.

The sparse material challenging the Vitamin C panacea is obviously delegated a necessary but begrudged place in the book. In fact it seems almost an appendage, with no real use to the reader. The few physicians who will read this book will do so from curious interest or to legitimize their use of mega-vitamin therapy.

Recognizing the nutritional bias of the author—a proclamation from the book's jacket—I would conclude that this book adequately, if not perhaps somewhat sensationally, presents the case for universal and extensive use of Vitamin C in the primary attack against cancer.

STEPHEN Z. SMITH, M.D.

FOR SALE

312 Acres in Oldham and Shelby Counties
near Ballardsville
Completely renovated 3 bedroom main house
over 100 years old. Two tenant houses.
Barns in poor to good shape. Tobacco base
9,265 lbs. WATER AND ELECTRICITY.

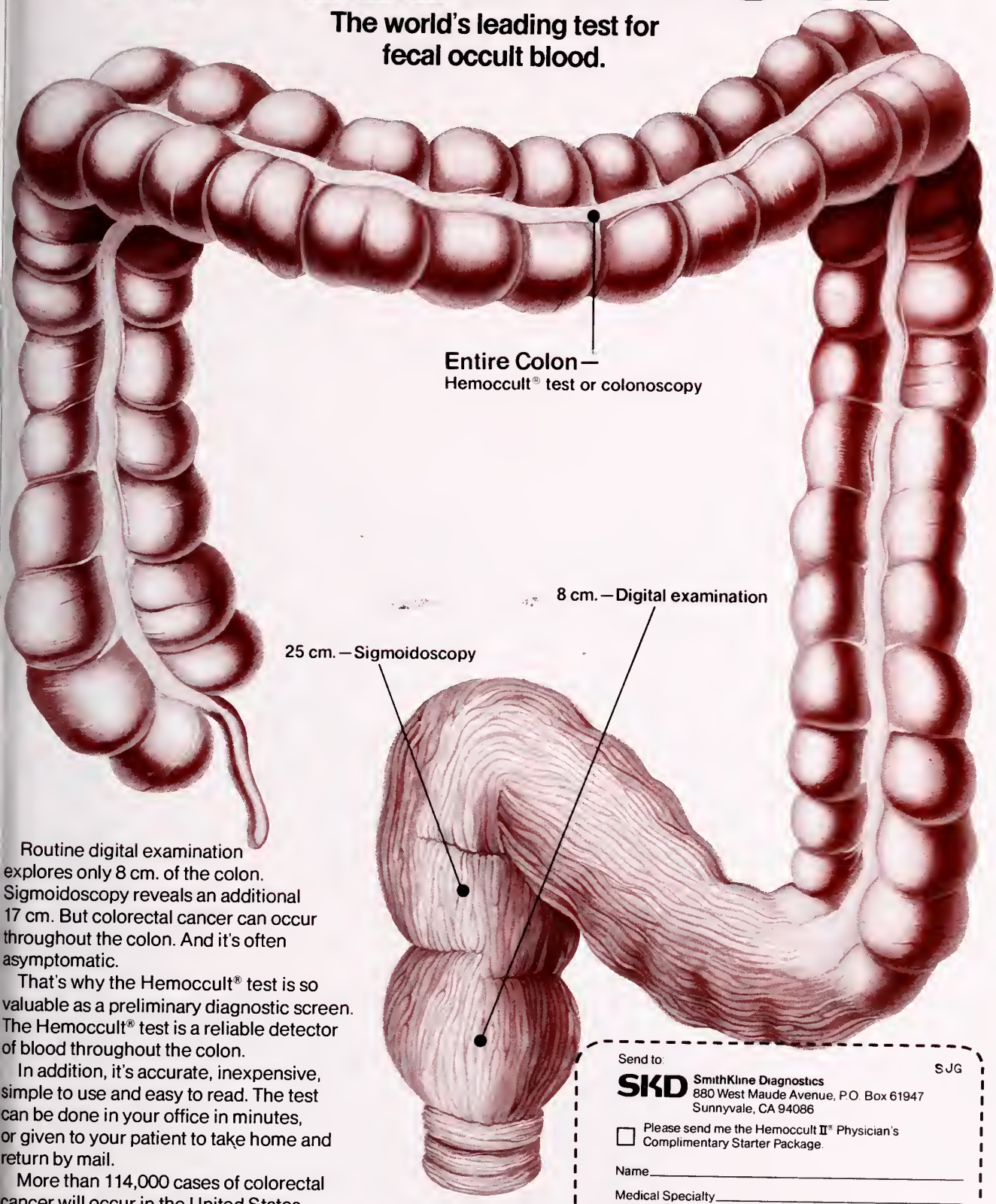
Charles D. Edmonson
First Kentucky Trust Co.
Real Estate Department
P.O. Box 36010
Louisville, Kentucky 40232
Area Code (502) 581-5195

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

Hemoccult®

The world's leading test for fecal occult blood.



Routine digital examination explores only 8 cm. of the colon. Sigmoidoscopy reveals an additional 17 cm. But colorectal cancer can occur throughout the colon. And it's often asymptomatic.

That's why the Hemoccult® test is so valuable as a preliminary diagnostic screen. The Hemoccult® test is a reliable detector of blood throughout the colon.

In addition, it's accurate, inexpensive, simple to use and easy to read. The test can be done in your office in minutes, or given to your patient to take home and return by mail.

More than 114,000 cases of colorectal cancer will occur in the United States this year. The earlier they are diagnosed, the greater the chances for successful treatment. Send for your free Hemoccult® starter package, today.

Send to: SJG

SKD SmithKline Diagnostics
880 West Maude Avenue, P.O. Box 61947
Sunnyvale, CA 94086

☐ Please send me the Hemoccult II® Physician's Complimentary Starter Package.

Name_____

Medical Specialty_____

Address_____

City_____ State_____ Zip_____

Phone_____

Hemoccult® is available through local distributors, nationwide.

©SmithKline Diagnostics, 1980

When painful spasm is the presenting symptom . . .



...in the functional bowel/irritable bowel syndrome*

Bentyl®

(dicyclomine hydrochloride USP)

10 mg. capsules, 20 mg. tablets,
10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity with minimal anticholinergic side effects†

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

Merrell

8-4420 (Y736A) MNR-804

Bentyl®

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INOICATIONS

Based on a review of this drug by the National Academy of Sciences–National Research Council and/or other information, FOA has classified the following indications as "probably" effective

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

THESE FUNCTIONAL OISOROERS ARE OFTEN RELIEVEO BY VARYING COMBINATIONS OF SEOATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup)

Final classification of the less-than-effective indications requires further investigation.

CONTRAINOICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis. WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. AOVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness, drowsiness, weakness; dizziness, insomnia; nausea, vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations, some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. OOSAGE ANO AOMINISTRATION: Oosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg. capsule and syrup: *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg.: *Adults*: 1 tablet three or four times daily. Bentyl Injection: *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVEROOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of October, 1978.

Injectable dosage forms manufactured by CONNAUGHT LABORATORIES, INC., Swiftwater, Pennsylvania 18370 or TAYLOR PHARMACAL COMPANY, Decatur, Illinois 62525 for MERRELL-NATIONAL LABORATORIES, Division of Richardson-Merrell Inc., Cincinnati, Ohio 45215, U.S.A.

Merrell

MERRELL NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

KEMPAC Elects Officers For 1980

Thomas R. Watson, M.D. of Louisville, has been elected Chairman of the KEMPAC Board of Directors. Other officers elected are: John W. Harrison, M.D., Ashland, Vice Chairman; P. Bruce Barton, M.D., Corbin, Secretary; James A. Freer, M.D., Fordsville, Treasurer; and Edith Dillon, Lexington, Assistant Treasurer.

For quick reference the following is a list of the KEMPAC Board of Directors:

First Congressional District

James Brashear, M.D.—Box 469, Central City, KY 42330
Wally O. Montgomery, M.D.—3690 Marlborough Way, Paducah, KY 42001

Second Congressional District

James A. Freer, M.D.—P.O. Box 126, Fordsville, KY 42343
James E. Anderson, M.D.—2707 Breckenridge St., Owensboro, KY 42302

Third Congressional District

Edward C. Shrader, M.D.—3035 Poppy Way, Louisville, KY 40206
Sam D. Weakley, M.D.—103 Baptist East Doctors Building, Louisville, KY 40207

Fourth Congressional District

Raymond Timmerman, M.D.—800 Alexandria Pike, Ft. Thomas, KY 41075
Thomas R. Watson, M.D.—2 River Hill Road, Louisville, KY 40207

Fifth Congressional District

P. Bruce Barton, M.D.—Doctors Park, Corbin, KY 40701
Stephen T. Jasper, M.D.—701 Leaf Lane, Somerset, KY 42501

Sixth Congressional District

John Cheshire, M.D., #40 Hedgewood, Frankfort, KY 40601
Ward O. Griffen, Jr., M.D.—U of K Medical Center, Dept. of Surgery, Lexington, KY 40536

Seventh Congressional District

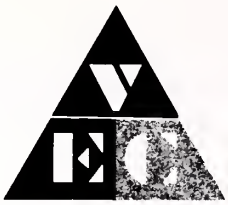
John W. Harrison, M.D.—Rt. 4, Box 93, Ashland, KY 41101
Terry Wright, M.D.—Elkhorn City, KY 41522

Represent Auxiliary to KMA

Mrs. Ballard Cassady (Ann)—Box 2469, Pikeville, KY 41501
Mrs. Marcus Dillon (Edith)—3336 Braemer Drive, Lexington, KY 40502
Mrs. George W. Schafer (Pat)—732 Greenridge Lane, Louisville, KY 40207
Mrs. N. H. Talley (Shirley)—110 E. Washington Street, Princeton, KY 42445

Exofficio Members

Donald C. Barton, M.D.—Doctors Park, Corbin, KY 40701
Carl Cooper, Jr., M.D.—Bedford, KY 40006
Hoyt D. Gardner, M.D.—Suite 304, Baptist East Doctors Building, Louisville, KY 40207
John C. Quertermous, M.D.—205 Eighth St., Murray, KY 42071
C. Kenneth Peters, M.D.—1911 Hurstbourne Circle, Louisville, KY 40220
Fred C. Rainey, M.D.—912 Woodland Drive, Elizabethtown, KY 42701



VAN ZANDT, EMRICH & CARY

INCORPORATED

WE SPECIALIZE

IN

INSURANCE AND FINANCIAL PLANNING FOR PHYSICIANS

JO. M. VAN ZANDT
CLAUD I. EMRICH, JR.
ARTHUR CARY, CPCU
ROBERT C. EMRICH
LUKE WHITTAKER
J. STEPHEN WATERFILL
PAUL G. FRANZ, CPCU

Insurance Professionals with the Personal Touch





Starks Bldg., Louisville, Ky. 40202, (502) 585-2351

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Information. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

The Legacy of Laplace

Antimicrobial Therapy, Case #16
Fever and Chills in a Drug Addict

History of Smallpox

April 1980
Volume 78
Number 4

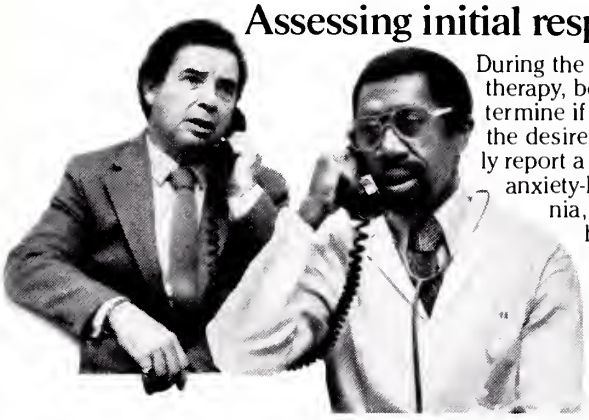
LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
MAY 7 - 1980

The Journal Of The Kentucky Medical Association

LIBRARY OF

Monitoring patient response to Valium® (diazepam/Roche)

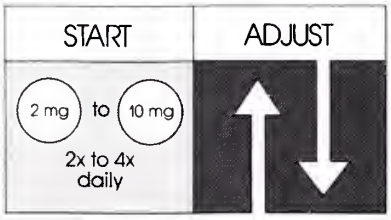
Assessing initial response to therapy



During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments



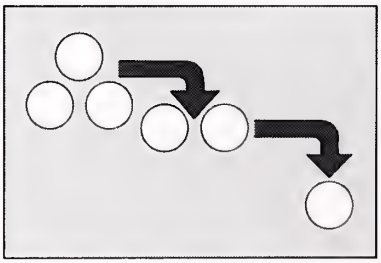
With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily. When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it. Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosage is good medical practice. Although rarely necessary after short-term treatment with Valium, gradual dosage reduction is advisable for patients who have been on extended therapy. This gradual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy at higher dosages taken continuously over long periods of time.

2-mg, 5-mg, 10-mg scored tablets

Valium® (IV)
diazepam/Roche

An Important Adjunct to Your Treatment Program for Excessive Anxiety

ROCHE® See the following page for a summary of product information.

Valium® (diazepam/Roche) ℞

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

ROCHE®

Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, New Jersey 07110

PERSONAL SERVICE

is the Reason so Many Doctors Lease from Us!

All Are Leasing Specialists:

Bill Foster — ACCT. EXEC.
Ben Gabbard — ACCT. EXEC.
Lee Balz — ACCT. EXEC.
Ed Harvey — ACCT. EXEC.
Ted DeFosset — GEN. MGR.
Jim Powell — ACCT. EXEC.

General Leasing CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

Leasing Cars—All makes & models,
Medical, Surgical & Laboratory Equipment
and Office Furnishings.

Uncommon Problems in the Human Life Cycle



Four Scientific Sessions-KMA Annual Meeting, Sept. 23-25, 1980,
Bluegrass Convention Center, Louisville

The Journal Of The Kentucky Medical Association

USPS 280-700

Volume 78 • April 1980

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

The Legacy Of Laplace
James F. Kurfees, M.D. 197

Clinical Approach to the Choice of Antimicrobial Therapy, Case #16: Fever and Chills in a Drug Addict
Julio C. Melo, M.D., John A. Van Arsdall, II, M.D., William C. Templeton, III, M.D. and Martin J. Raff, M.D. 203

The History of Smallpox: An Old Story of Current Significance
Joe Wayne Ray, B. A. and Hiram C. Polk, Jr., M.D. . 206

Sepsis After Splenectomy: Current Status of Pneumococcal Vaccine (Grand Rounds)
J. Donald Coonrod, M.D. 219

EDITORIAL

Health Priorities in Affluent Countries 225

ASSOCIATIONAL NEWS

Scientific Exhibits Application 236
Digest of Board of Trustees Meeting February 28, 1980 241
Report of CME Activities 241

REGULAR FEATURES

President's Page 196
Postgraduate Page 196
Manuscript Information 212
Letters to the Editor 231
Book Reviews 237
Members in the News 242
Headquarters Activity 242

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10
(Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• EDITOR
A. Evan Overstreet, M.D.

• ASSISTANT EDITORS
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• REGIONAL EDITORS
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• EXECUTIVE EDITOR
Robert G. Cox

• MANAGING EDITOR
Joseph A. Witherington, Jr.

• ASSISTANT MANAGING EDITOR
Donna M. Young

• DEPARTMENTAL EDITORS
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific
John W. Greene, Jr., M.D., Maternal Mortality

• BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Cook, III, M.D.
Stanley Lowenbraun, M.D.
Eugene H. Conner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 1980

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3905 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

APRIL BUYERS GUIDE FOR JOURNAL OF KMA

Blue Cross & Blue Shield of Kentucky 213
Boehringer Ingelheim Ltd. 192, 193, 194
Burroughs Wellcome Co. 227
Classified Column 243
Fenwick Hall 224
General Leasing Corporation 187
Insurance Corporation of America 223
Kentucky Medical Insurance Corporation 214
A.P. Lee Agency 226
Eli Lilly & Company 234
Medical Protective Company 243
Pharmacia Diagnostics 235
Roche Laboratories 186, 187, 245, 246
William H. Rorer Inc. 228, 229, 230
Smith, Kline & French 191
Van Zandt, Emrich & Cary, Inc. 239
Wyeth Laboratories 215, 216, 217, 218



Tagamet®

brand of

cimetidine

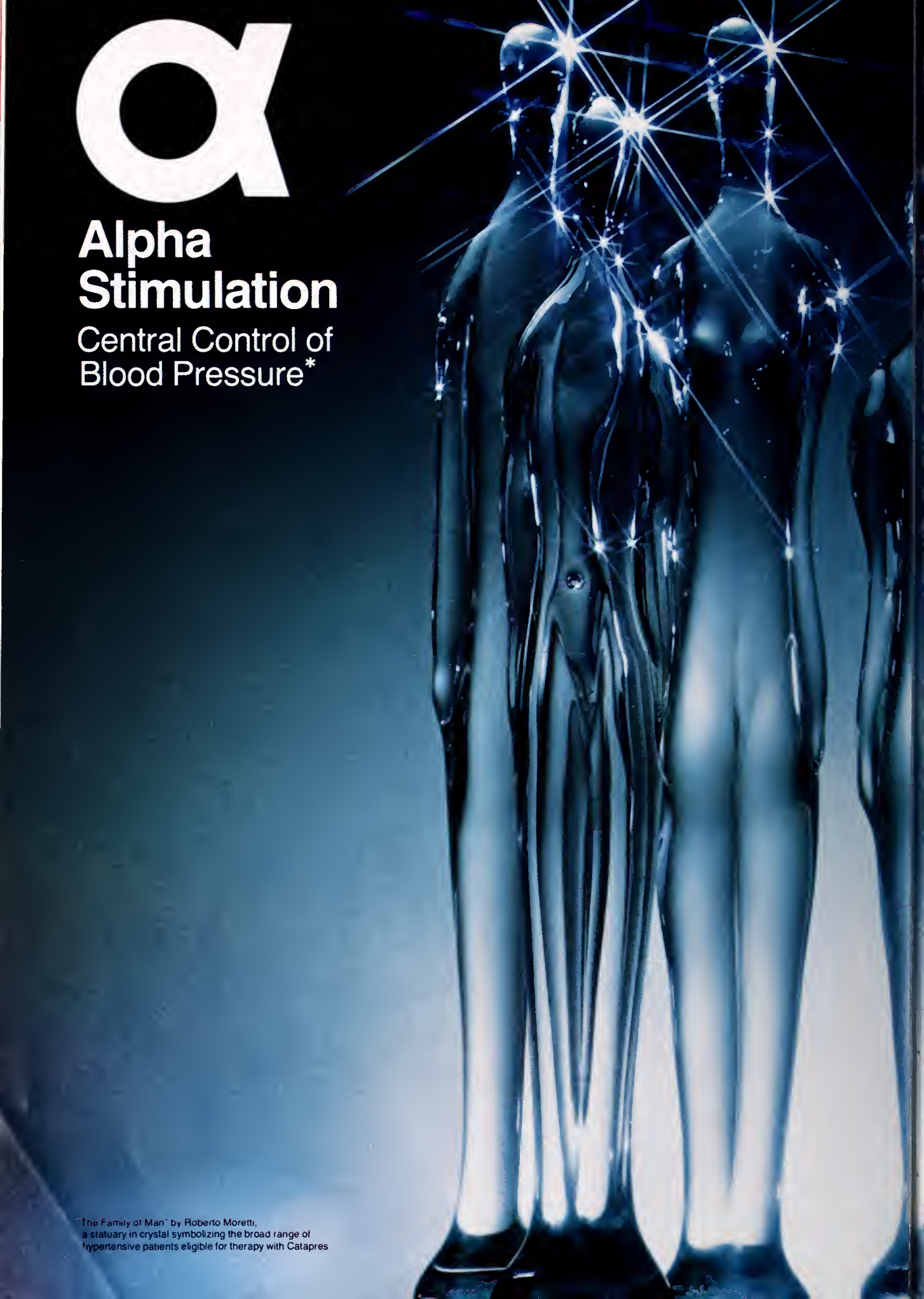
How Supplied:

Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres® has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets

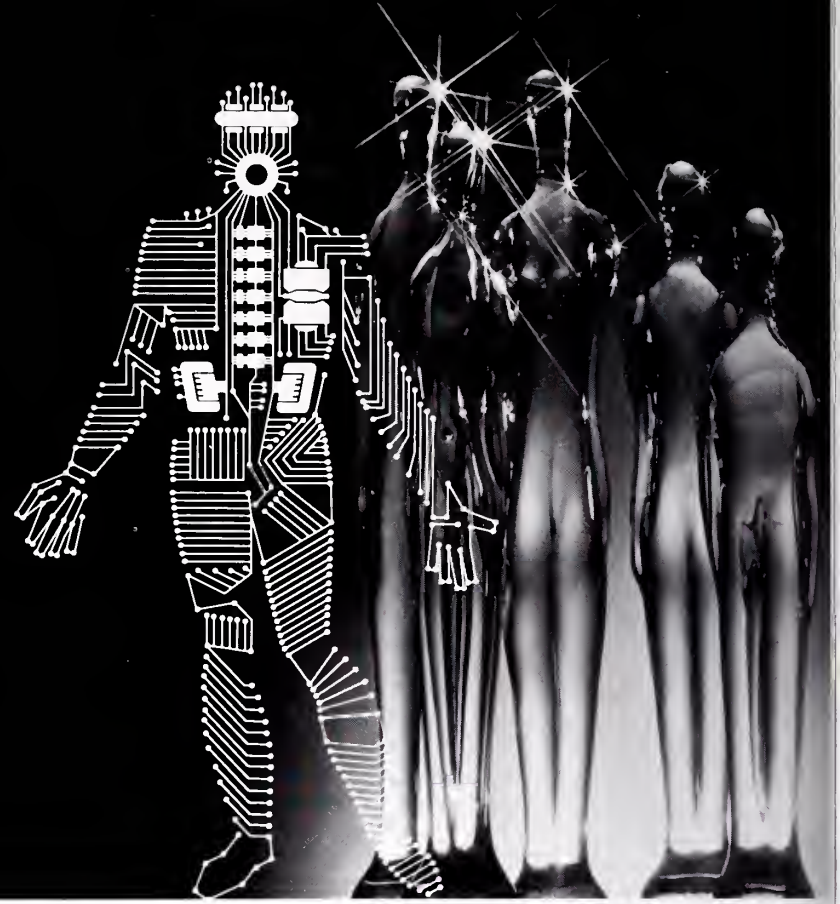


Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension

The Alpha Advantage:

It's for all kinds of hypertensives



Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefi from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 month longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness sedation. Constipation, dizziness, headache, and fatigue have been repo Generally these effects tend to diminish with continued therapy. The follo reactions have been associated with the drug, some of them rarely. (In s instances an exact causal relationship has not been established.) These incl Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormaliti liver function tests; one report of possible drug-induced hepatitis without ict and hyperbilirubinemia in a patient receiving clonidine hydrochloride, c thalidone and papaverine hydrochloride. Weight gain, transient elevation of b glucose, or serum creatine phosphokinase: congestive heart failure, Rayna phenomenon; vivid dreams or nightmares, insomnia, other behavioral chan nervousness, restlessness, anxiety and mental depression. Also rash, gioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associ with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryr itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecoma weakly positive Coombs' test, asymptomatic electrocardiographic abnorma manifested as Wenckebach period or ventricular trigeminy.

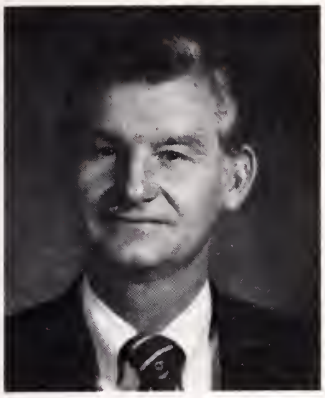
Overdosage: Profound hypotension, weakness, somnolence, diminished o sent reflexes and vomiting followed the accidental ingestion of Catapres (clon hydrochloride) by several children from 19 months to 5 years of age. Ga lavage and administration of an analeptic and vasopressor led to complet covery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-mi intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) c dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
Under license from Boehringer Ingelheim GmbH

BOEHRINGER INGELHEIM
Boehringer Ingelheim
Boehringer Ingelheim L
Ridgefield, CT 06877

PRESIDENT'S PAGE



The importance of communication with members of our association and the public has never been as clear as now. Headlines currently tell of the blunders that occur on a national level because of a communications gap. Although our problems may not be on such a grand scale, the practice of medicine in our state and nation could suffer irreparable damage if we fail to avail ourselves of the communication efforts of the association.

The Kentucky Medical Association does a remarkably fine job, and most of you who read this will realize as much. However, much of the structure, the function and activities of this organization is little known not only to many members but also to the public-at-large. With these thoughts in mind, the Board, at a special meeting on February 28, approved in principle a program of member and community education utilizing various means of communication. The major points will include:

1. Improvement of the presentation of our written communications, notably the "Communicator." The editorial board has proposed innovative changes for our very fine *Journal* in order to establish a closer member identity.

2. The development of the story of Kentucky medicine through the leadership of the Kentucky Medical Association. This will be presented in a magazine or bulletin format and will include the part that the Kentucky Medical Association plays in assuring quality care for patients throughout the state. This publication will be primarily for our membership and each year will include a special letter from leadership which should address items of interest such as budget information. This information will also be useful to our allied groups, legislators, business, and related community organizations. It will bear the message that we are a proactive organization and not the misconceived reactive group often pictured.

3. In an attempt to reach more members of the Kentucky Medical Association, we intend to ask for appearances before hospital staffs as well as specialty groups. We have many fine speakers within the Kentucky Medical Association and the plan is to utilize these talents before selected audiences including civic clubs and other groups interested in medically related topics. For certain programs, we are studying the possibility of preparing audio visual slide programs to cover discussions of HSA's, the voluntary effort, cost containment, and many others that would be of interest. Under this same outreach program, we are planning a corporate visitation program in which the leaders and staff of the Association will meet with various corporate leaders throughout the state to exchange views concerning health care and to make business more aware of our approach and the programs available through the Kentucky Medical Association.

4. The program also entails involvement by each local or trustee district in the state. The involvement of our trustees and other leaders in a communication effort forms the real basis of our effort. We are encouraging meetings with local newspaper editors and management of radio stations by the trustees of that district or other medical representatives to establish a better rapport with each local community. It is little known and certainly not appreciated that the Kentucky Medical Association was the moving force behind the voluntary effort of cost containment within this state. These same people should know that the Kentucky Medical Association was also responsible for the first "Physician Recruitment Fair" to aid smaller communities and critical areas in Kentucky in attracting primary care physicians.

This program also involves the individual physician in the overall concept. We have asked that the Medical Assistants' seminar be re-instituted to give the office assistants a better appreciation of the needs of the pa-

tient. The office assistant is usually the first line of contact with the patient, and the treatment received at that level is most important.

Other considerations under discussion are the initiation of a statewide health science fair which could be meaningful for us as far as future career aspirants are concerned. The auxiliary has generously offered their help in many of these endeavors. Their program "Shape Up For Life" will be an appropriate theme for both members and the public.

This effort will require participation of staff and members in addition to public relations representatives. With this approach, the fine story of the Kentucky Medical Association and its activities will be better appreciated by both the members and the state community.

ROBERT S. HOWELL, M.D.
KMA PRESIDENT

Kentucky Surgical Society Spring Meeting
Guest Speaker—Josef E. Fischer, M.D., Chairman, Department of Surgery, University of Cincinnati Medical Center, Cincinnati, Ohio

Two-day meeting at Barren River State Resort Park, Lucas, KY.
May 16-17, 1980

Category I, Continuing Medical Education Credit

Postgraduate Opportunities

APRIL

3	25th Annual Spring Clinical Conference, Specialty Problems in Primary Care, Lexington Clinic, Lexington
11-12	Recent Advances in Treatment of Diabetes, Hyatt Regency, Lexington*
15	Current Advances in Imaging Modalities, St. Anthony Hospital, Louisville
15-16	Seminar on Quality Assurance, Executive West, Louisville
19	Kentucky Society for Gastrointestinal Endoscopy, Second Annual Meeting, Hyatt Regency, Louisville
21	First Annual Minhas Lecture, Health Sciences Center**
24-26	Update in High Risk Pregnancy Management, Hyatt Regency, Louisville
28-30	Southeastern Surgical Congress, 48th Annual Assembly, Marriott Hotel, Atlanta

MAY

4-8	Instructional Course in Hand Surgery, Marriott Inn, Clarksville, Ind.
5-6	Medical Aspects of Sports, Symposium: Physical Therapy Rehabilitation of Athletic Injuries, Hyatt Regency, Lexington*
9	Conference on Emergency Medicine, Good Samaritan Hospital, Lexington
11-16	11th Family Medicine Review, Session II, Hyatt Regency, Lexington
15	Common Problems in Pediatric Allergy, Health Sciences Center, Louisville**
16-17	Kentucky Surgical Society, Spring Meeting, Barren River State Resort Park, Lucas, Ky.

JUNE

5	The Consequences of Stress, Health Sciences Center, Louisville**
8-13	11th Family Medicine Review, Session III, Hyatt Regency, Lexington*
22-28	5th Family Medicine Review, Galt House, Louisville**

JULY

19-20	KAFP Summer Seminar, Owensboro

AUGUST

9-16	JCMS—CME Meeting, Snowmass, Colorado

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161*

***For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*

The Journal Of The Kentucky Medical Association

April 1980 Volume 78 Number 4

The Legacy Of Laplace

JAMES F. KURFEES, M.D.

Because the Law of Laplace relates wall tension directly to transmural pressure and inversely to radius in a hollow viscus, it helps to explain many pathologic phenomena. In fact, it becomes a physiologic common denominator in understanding many pathologic states. This paper examines some of the applications of this law to the problems of congestive heart failure, emphysema, aneurysms, diverticulitis of the colon, micturition, pulmonary edema and respiratory distress syndrome.

Introduction

PIERRE Simon Marquis de Laplace was a brilliant mathematician and astronomer who flourished in France between 1749 and 1827. His genius was recognized early at the age of 16 and his contributions in the field of gravitation, determinants, celestial mechanics and spherical harmonics were great. Among his many accomplishments, Laplace solved the problem of Newtonian celestial movements or perturbations of planets involving an apparent shrinking of Jupiter's orbit with expansion of Saturn's orbit. In the field of mathematics, Laplace Transforms were the new math of the day and are valuable even today.

Under Napoleon the First, in 1799 Laplace was appointed Minister of the Interior but was fired in six weeks for bringing "the spirit of infinitesimals into administration." He was elevated to the Senate shortly thereafter, and later was made a count and then a marquis.[1]

Spherical harmonics are functions which occur in the theories of gravitation, electricity, hydrodynamics, and many other branches of mathematics and physics. It is a specific derivative of the spherical harmonics of Laplace that led to interesting mathematical derivations which describe some of the problems of a failing heart, aneurysms, emphysema, colon function, micturition and other similar matters. This paper deals with an application of the Law of Laplace to these various problems.

The increased volume of an elastic organ causes a restoring force (T) in the wall and pressure in its contents. One would predict, *a priori*,

From the University of Louisville School of Medicine, Department of Family Medicine, Louisville, Ky.

that as the internal pressures increase, tension or elastic force would follow in a simple manner. However, the relationship also involves the radii of curvature of the cavity of the organ or vessel such that: $2T = PR$ describes the general case of tension (T) in the wall (dynes/cm) as equal to pressure (P) (in dynes/cm^2) times the radius (R) (cm) of the chamber.[2,3] This is a simplified version of Laplace's original statement: $P_1 - P_2 = T \times \left(\frac{1}{R_1} + \frac{1}{R_2}\right)$, where $P_1 - P_2$ is a pressure differential, T again is wall tension, R_1 and R_2 are different cavitary radii of curvature. In this paper the approximate statement of the Law of Laplace is used since it will not alter the logic in the subsequent sections.

Congestive Heart Failure

Why does the failing heart continue to fail? Setting aside considerations of the Frank-Starling curves, the Laplace relationship for the left ventricle can be simplified to that for a sphere by equating the two principle radii of curvature and factoring in the wall thickness (h) such that: $T = \frac{PR}{2h}$ describes the relationship for the heart.[4,5]

Assume two hearts, one of normal volume-pressure relationships and a second, dilated failing heart of larger volume and twice the radius with the same pressure as the normal one. What happens to wall stress (T)?

The Tension then simplifies to $T_2 = P_1 \times 2R_1$, the significance of which is that **in order to keep the pressure the same in the failing heart the tension must double in this case.**

What is the practical consequence of such? The following graph approximates the relationship between oxygen consumption and wall stress or tension.

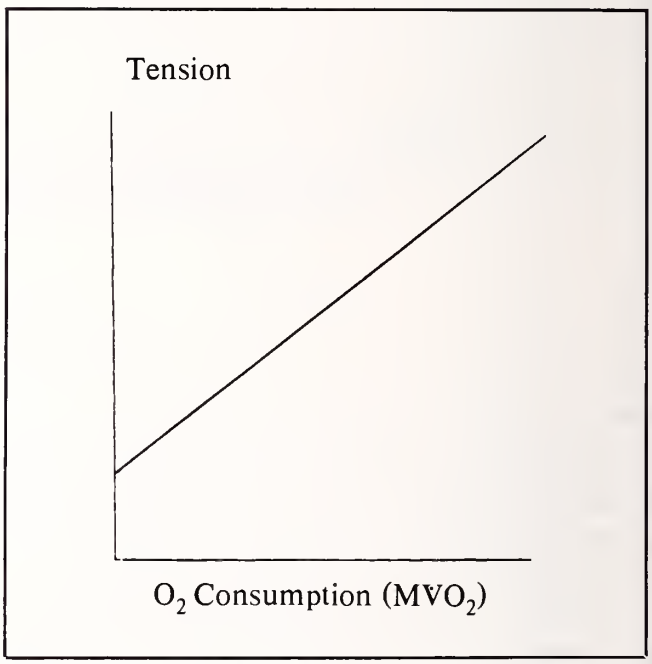


Fig. 2: Approximate Relationships of Myocardial Fiber Tension to Myocardial Oxygen Consumption

(1) Normal Heart:
$$T_1 = \frac{P_1 R_1}{2h_1}$$
(2) Dilated Heart:
$$T_2 = \frac{P_2 R_2}{2h_2}$$
Where: $P_1 = P_2$
$R_2 = 2R_2$
and $h_1 = h_2$

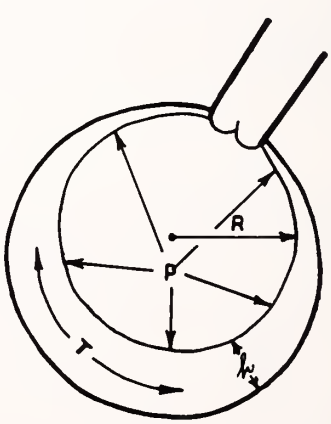


Fig. 1: The Geometry of Terms. T = Tension; P = Pressure; R = Radius.

This indicates that the failing heart has a greater O_2 need with ever increasing lack of ability to supply that need. The therapeutic implications are twofold; first, reduce volume and second, increase force of contractility. Diuresis will lower the End Diastolic Volume (EDV) and allow the radius (R) to reduce and thus T to reduce, lowering O_2 requirements. A positive inotropic agent such as Digitalis, while increasing force of contraction and shortening myocardial fibers, increases O_2 demand. Such an agent as Digitalis reduces the radius (R) and hence tension but increases wall stress by direct effect on the fiber function. The net effect, however, is salutive. This does not occur when Digitalis is erroneously given to the small heart. When this happens, wall stress is increased, O_2 demand increases and angina may ensue with no offsetting reduction in chamber size. Thus the dictates of the physics of Laplace clearly favor diuresis to reduce End Diastolic volume (EDV) as one of the most important initial steps in bringing tension in line with O_2 supply. Other factors such as increased afterload (hypertension), decreased contractility (cardiomyopathy), and valve dysfunction aggravate the situation but the basic physical problem remains chamber size (R).

One way the myocardium attempts to relieve this situation is by increasing wall thickness (h); that is, by ventricular hypertrophy. $T = \frac{PR}{2h}$ says that as the thickness (h) increases, even though R increases, T increases less or not at all, if P remains constant. However, hypertrophy is at last self defeating. As fibers increase in size the logistics of substrate-end products translocation and ion transport (diffusion, etc.) worsen. If one compares the surface area of a sphere, for example, to that of it's volume, the formula $\frac{4 \Pi r^2}{4/3 \Pi r^3}$ describes this relationship. Simplified, it states that the surface area is a square function (r^2) and the volume is a cube function (r^3). This dictates that as the volume enlarges there is an ever decreasing surface area available for diffusion to add to the ever increasing length of diffusion pathway and time required to completion. Hypertrophy is a mixed blessing.

Emphysema

The Laplace relationship for the alveoli raises still another curious question: Why is emphysema not inevitable once two alveoli of dissimilar diameters come to be?

Again, $T_1 = \frac{P_1 R_1}{2}$ and $T_2 = \frac{P_2 R_2}{2}$ but since R_2 is larger than R_1, P_2 is smaller than P_1 and T_2 is greater than T_1. $\left(P_2 = \frac{2T_2}{R_2}\right)$

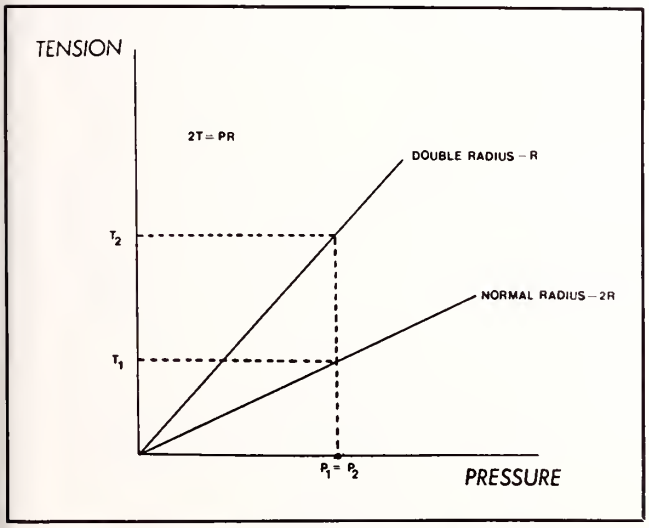


Fig. 3: Tension, Pressure, Radius Relationships. $P_1 = P_2$ but the dilated heart (2R) has twice the wall stress (T_2).

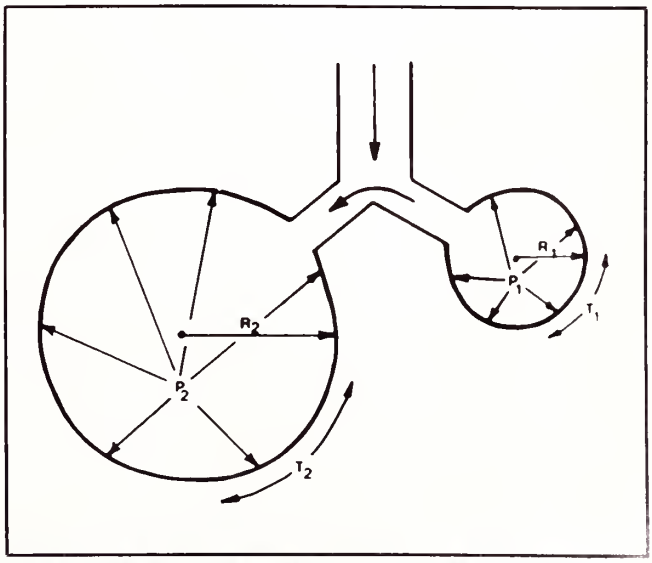


Fig. 4: Schematic Representation of Two Dissimilar Alveoli.

(Thickness (h) is ignored because assumed same for both alveolar walls.) If P_2, the pressure in the larger alveolus, is less than P_1 then air-flow would favor filling the larger alveolus until tension (T_2) is excessive and rupture ensues. All this is aided by early closure of small airways constantly trapping more air.

In the lung, such rupture results in coalescence of contiguous alveoli, making a larger chamber with even lower pressure and greater wall tension with the propensity to rupture again. There is no doubt that the pores of Kohn connecting alveoli provide collateral ventilation and equalization of pressures, thus a decreased tendency to emphysema, but alone probably do not account for the whole answer to why emphysema is not inevitable.

It is true that Surfactant (dipalmitoyl lecithin-protein complex) reduces surface tension inside the alveolus, thus reducing its tendency to collapse (atelectasis) and making filling easier. However, this would not mitigate against the above, for the larger an alveolus is, the less Surfactant operates. The situation thus remains the same. By virtue of the physics involved, once emphysema begins it is inevitable that it proceed unless one considers the limiting factors to prevent untoward expansion; **i.e.,** elastic connective tissue and collagen. Since these factors cannot operate as well at the surface as in the parenchyma, bleb formation occurs. A more basic question is, could emphysema be a disease of connective tissue? Indeed in the case of α_1 antitrypsin deficiency such would be true. But is emphysema in general a "collagen disease" or a connective tissue disorder? Bloom and Fawcett[6] state that elastic fibers become permanently deformed (break) at 150% of their resting length at 20-30 Kg/cm^2, while collagen fibers break at several hundred Kg/cm^2 with only a few percent elongation. Any chemical substance that would weaken the elastin would subject it to breakage at a lower tensile strength; some air pollutants well qualify.

Studies have been reported by Burton[7] for the elastin in elastic arteries as seen in Figures 5 and 6. These clearly show alteration of length—tension diagrams by chemical action as well as aging. A similar phenomenon may occur in the lung.

Respiratory Distress Syndrome and Pulmonary Edema

Consider a normal infant with an alveolar radius of 50 μ. The pressure (P) needed to expand this alveolus would be according to Comroe:[8]

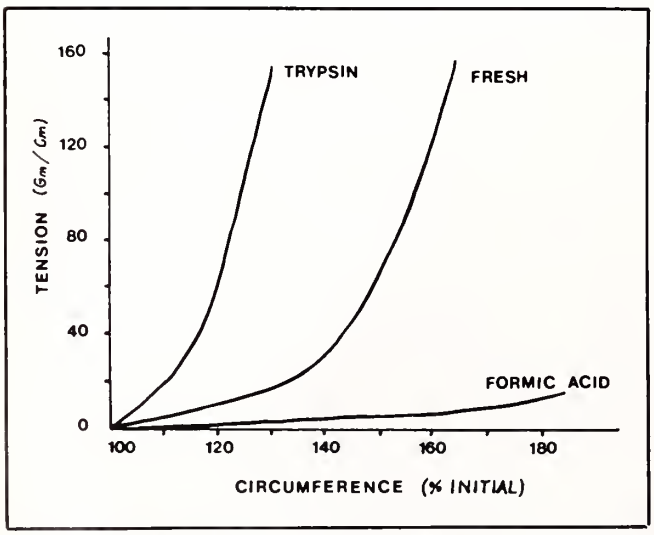


Fig. 5: Chemical Effects on The Length-Tension Function of Elastin in Elastic Arteries.[7]

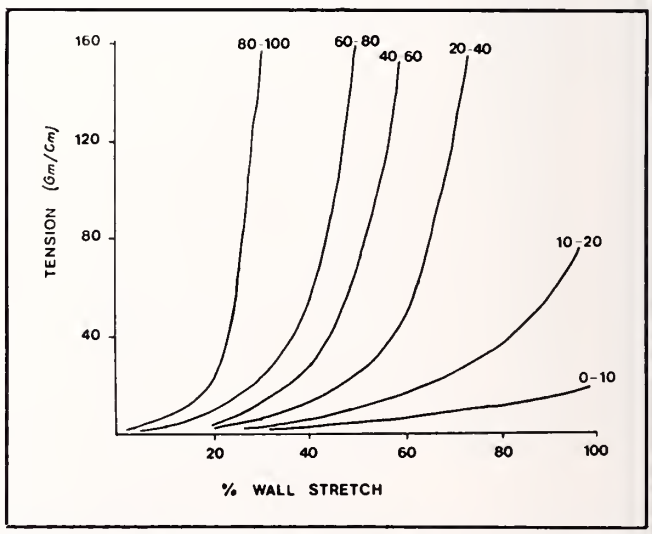


Fig. 6: Age Effects on the Length-Tension Function of Elastic Arteries.[7]

$$P = \frac{2T}{R}$$

$$= \frac{2 \times 5 \text{ dynes/cm}}{50\,\mu}$$

$$= 2\text{cm } H_2O$$

In Hyaline Membrane Disease or pulmonary edema with a lining fluid in the alveolus reducing its radius to 25 μ, the pressure now needed for expansion would be:

$$P = \frac{2T}{R}$$

$$= \frac{2 \times 25 \text{ dynes/cm}}{25\,\mu}$$

$$= 20\text{cm } H_2O$$

The cost-benefit ratio would rapidly deteriorate toward markedly increased work of respiration with diminished volume exchanged.

Aneurysms

Again the Law of Laplace explains much in the case of aneurysms. (The longitudinal radius is "infinite" and thus can be discounted in the logic here).

Even if the pressure remains the same, once the enlarging diameter begins, tension (T) mounts and when it exceeds the elastic modulus of the connective tissue in the wall, rupture is inevitable. The Laplace relationship also explains why big aneurysms are more dangerous than small. Interestingly, the clot that often forms is protective since, $T = \frac{PR}{2h}$ where h is the thickness of the wall now augmented by the clot, T must be lowered.

Colon Function

Part of the Laplace legacy is an explanation of diverticular disease and constipation. (Longitudinal R is again "infinite," thus drops out of logic).

Again, $2T = PR$, so that as the radius increases by eating bulk (fiber), as has been shown by Burkett, the wall tension (T) increases, facilitating the passage of peristaltic waves and hence evacuation. Also, this is accomplished at a lower intra-luminal pressure for $P = \frac{2T}{R}$, R having increased. This lower intra-luminal pressure by bulk increase of radius reduces the tendency to form diverticuli and reduces the likelihood of their rupture once formed. The therapeutic implication is the ingestion of greater quantities of bulk.

The Urinary Bladder

The Law of Laplace is also operable in the urinary bladder. Here it explains why as the radius increases, T increases but intravesical pressure

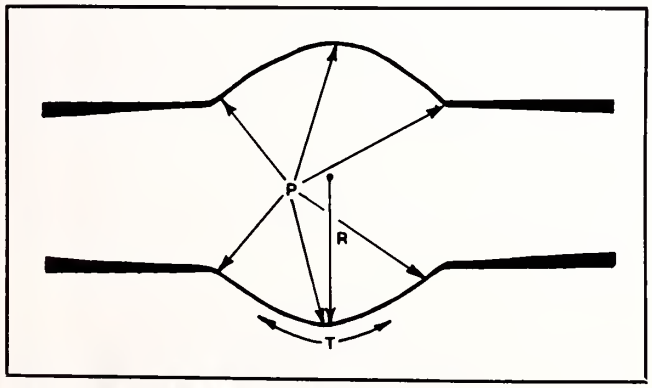


Fig. 7: Relationships in an Aneurysm

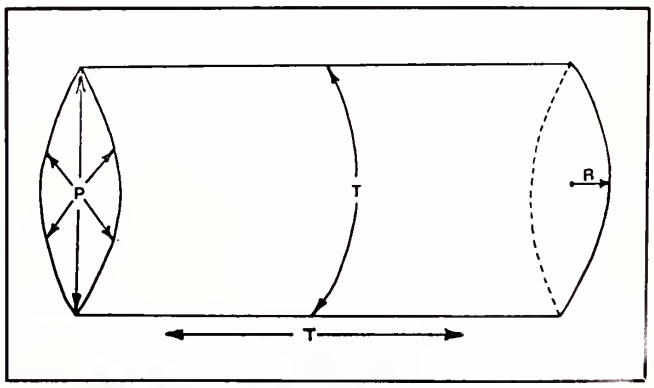


Fig. 8: Laplace Relationships in the Colon

does not increase significantly until micturition.[9] Since the adequate stimulus for micturition is through proprioceptive stretch receptor end-organs, it is then tension that mediates this, not intra-luminal pressure.

Conclusion

From the physics of spherical harmonics and from the pure mathematics of Laplace Transforms by way of the frivolous soap bubble, one would not have predicted *a priori* that soap bubbles could teach so much, but from the esoteric or trivial and often apparently inconsequential, great findings occur. It is said that the great Disraeli visited Michael Faraday's laboratory one day after he had just invented the first miniature electric motor. The great statesman asked Faraday, "What good is it?" Whereupon the scientist replied, "What good are babies?" Rich indeed is the legacy of Laplace.

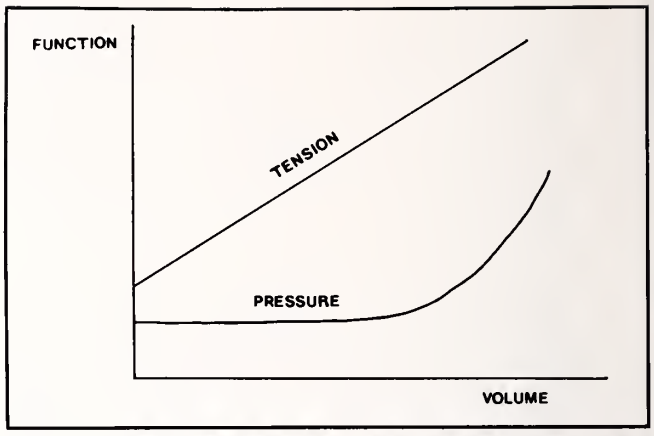


Fig. 9: Volume, Pressure, Tension Relationships in The Urinary Bladder

Acknowledgements

The author gratefully wishes to thank David Watkins, M.D. for his assistance in art work; John Passmore, Ph.D. and Richard Neiberger, M.S., Ph.D. of the Department of Physiology for criticizing my early manuscript; Mrs. Betty Higgs for her faithful efforts at typing the manuscript.

References 1. Encyclopedia Britannica, Chicago: Wm. Benton Publisher, 1961, 13:716. 2. Randall E, *Elements of Biophysics,* Chicago: Year Book Medical Publishers, 1962, pp 208-209. 3. Stacy W, et al, *Essentials of Biological and Medical Physics,* York, Pa.: The Maple Press Company, 1955. pp 48, 370-374. 4. Sodeman A, Jr, et al, *Pathologic Physiology, Mechanisms of Disease,* Philadelphia: W.B. Saunders Company, 1974. pp 251, 277-279. 5. Bard P, *Medical Physiology,* St. Louis: the C.V. Mosby Company, 1961. pp 141-142. 6. Bloom W, Fawcett, DW, *A Textbook of Histology,* Philadelphia: W.B. Saunders Company, 1962. pp 88. 7. Burton, AC, *Physiology and Biophysics of the Circulation,* Chicago: Year Book Medical Publishers, 1965. pp 72-83. 8. Comroe JH, Jr, *Physiology of Respiration,* Chicago: Year Book Medical Publishers, 1965, pp. 110. 9. Brobeck JR, et al, *Best & Taylor's Physiological Basis of Medical Practice,* Baltimore: The Williams & Wilkins Company, 1973. Section 5, pp 52-55.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

A Clinical Approach to the Choice of Antimicrobial Therapy, Case #16: Fever and Chills in a Drug Addict

JULIO C. MELO, M.D., JOHN A. VAN ARSDALL, II, M.D., WILLIAM C. TEMPLETON, III, M.D. AND MARTIN J. RAFF, M.D.

This is the sixteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antibiotics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

A 20-year-old male who is a known user of illicit intravenous drugs for seven years, is admitted to hospital with the sudden onset of fever, chills, cough, generalized malaise and myalgias for three days. Physical examination reveals an acutely ill young patient, with temperature 104°F, pulse 140/min, blood pressure 110/60 mm Hg, and respirations 36/min. Ophthalmoscopic examination is normal, and there are no conjunctival, palatal or sublingual petechiae or other physical signs of embolization. The neck is supple. Auscultation of the chest reveals scattered rhonchi in both lung fields. Heart rate is 140/min and no murmurs are heard. The abdomen is soft without splenomegaly and the remainder of the physical examination is normal. Laboratory data includes a hemoglobin 13.0 g/dl, hematocrit 39.5%, and WBC count 17,000/mm^3 with 70% neutrophils, 20% bands, 10% lymphocytes. Urinalysis shows a specific gravity 1.024, pH 5.5, 0-3 WBC/hpf, 5-6 RBC/hpf, 2+ protein and no casts. Serum electrolytes are; Na 135 meq/L, K 4.1 meq/L, Cl 98 meq/L, CO_2 18 meq/L and BUN 24 mg/dl. Electrocardiogram (ECG) shows a sinus tachycardia. Chest x-ray reveals "nodular lesions" in both lung fields.

All of the following statements concerning this patient are correct **except**

A. The absence of peripheral signs of embolization is very much against a diagnosis of endocarditis.
B. This clinical picture is very suggestive of right-sided endocarditis, even in the absence of a heart murmur.
C. Since endocarditis is likely, this patient must have at least three blood cultures drawn before antibiotic therapy is initiated.
D. If this patient has endocarditis, his blood cultures are likely to grow the causative agent.
E. The "nodular lesions" on chest x-ray most probably represent septic pulmonary emboli.

Answer: A. Peripheral signs of endocarditis (conjunctival and other petechiae, Roth spots, splenomegaly, Osler nodes, Janeway lesions) are not as common as they were in the pre-antibiotic era. Studies have indicated that even in the sub-

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, P.O. Box 35260, Louisville, Ky. 40232.

acute presentation of bacterial endocarditis there has been a decrease of from 85% to a 19-40% incidence of peripheral manifestations.[1] Since in the acute form of the disease peripheral manifestations are even more uncommon, their absence does not preclude the diagnosis of endocarditis. It should be noted however, that this patient did have microhematuria, which is an often overlooked manifestation of this disease. The presence of fever, cough, and abnormal chest x-ray in a drug abuser, even in the absence of a heart murmur should immediately alert the physician to the possibility of tricuspid endocarditis.[2] Cardiac murmurs may be absent in 50% of these patients, and the presence of pulmonary embolic phenomena simulating pneumonia may be the first clue to tricuspid endocarditis.[3] The sine qua non of the diagnosis of bacterial endocarditis in patients who have not been pretreated with antibiotics is the presence of the organisms in the blood cultures.[4] In 98% of cases one of the first three cultures will be positive and 91% of the time all of the cultures are positive.[4] This is because the bacteremia of endocarditis is continuous, with approximately the same numbers of bacteria per milliliter of blood being present at any given time of day.

The most common organism responsible for tricuspid endocarditis in drug addicts is:

A. *Staphylococcus aureus.*
B. *Staphylococcus epidermidis.*
C. *Pseudomonas aeruginosa.*
D. Yeast-like fungi.
E. *Streptococcus faecalis* (enterococcus).

Answer: A. Although all of the above organisms have been associated with endocarditis in heroin addicts the one most commonly seen in this situation is *Staphylococcus aureus.*[5,6] If it seems necessary to begin therapy empirically (before blood culture results have returned) because of the clinical state of the patient, the initial antibiotic therapy of choice would be:

A. Clindamycin (Cleocin®)
B. Cefazolin (Kefzol®, Ancef®)
C. Carbenicillin (Geopen®) and Gentamicin (Garamycin®)
D. Nafcillin (Unipen®, Nafcil®) and gentamicin (Garamycin®)
E. Vancomycin (Vancocin®)

Answer: D. Although clindamycin is an effective agent against *S. aureus in vitro,*[7] and it has been shown to be clinically effective in the treatment of *S. aureus* endocarditis,[8] its use in this type of endocarditis should be reserved for very special situations; particularly when allergy to pencillin and cephalosporins precludes their use, and/or intravenous routes of drug administration have been exhausted by the patient's addiction. Failures of therapy and development of resistance of the organism while the patient is on therapy have been reported when this agent has been used to treat staphylococcal endocarditis.[9] In addition, clindamycin is not effective against enterococci or *Pseudomosas aeruginosa.* Without knowing the causative organism it would not be wise to use only a single antibiotic initially.

Therefore, cefazolin alone would also not be indicated as the drug of choice. Although cephalosporins have been used with success to treat *S. aureus* endocarditis, there is some indication that cefazolin as well as other cephalosporins may be inactivated by beta-lactamase enzymes produced by *S. aureus.*[10] Failures of therapy with cefazolin have been reported,[11] although the reasons for these may not be due to deficiencies in cefazolin,[12] but rather to the complications of this disease. If a cephalosporin is required, we feel that cephalothin (Keflin®) is an adequate choice.

Carbenicillin and gentamicin would not be effective against penicillin-resistant *S. aureus* which is the most common organism involved in this clinical syndrome.[6]

Vancomycin alone would also not be indicated initially since it would leave *Pseudomonas aeruginosa* uncovered. Nafcillin and gentamicin are the best choice since this combination will be effective against most of the organisms that are likely to be the causative agents of endocarditis in drug abusers.

The patient is started on nafcillin and gentamicin and 48 hours later all of his blood cultures grow *S. aureus.* Each of the following statements are correct **except:**

A. Nafcillin and gentamicin should be continued since this combination is synergistic and more effective against *S. aureus* endocarditis than nafcillin alone.
B. Gentamicin should be discontinued and treatment continued with nafcillin alone.
C. The route of clearance of nafcillin is predominantly through hepatic detoxification and excretion.
D. Methicillin, oxacillin and nafcillin are clinically equally effective against *S. aureus* infections but the incidence of side effects is quite different among the three.
E. Doses of nafcillin require only minimal adjustments in patients with renal failure.

Answer: A. It is not necessary to use two drugs.

Since acute staphylococcal endocarditis may be a rapidly fatal disease, it has been suggested that therapy with a synergistic combination of antibiotics would be more clinically beneficial.[13] The combination of nafcillin and gentamicin has been shown to be synergistic in experimental staphylococcal endocarditis,[14] predominatly by enhancing the rate of killing of organisms within valvular vegetations. However, in Watanakunakorn and Baird's retrospective analysis,[15] no beneficial effect was seen due to the addition of an aminoglycoside to the antistaphylococcal penicillin with which they treated their patients. In another randomized study[6] that involved 25 patients there was no bacteriologic failure or relapse in the patients given either an antistaphylococcal compound alone or in those who also received an aminoglycoside. It appears at the moment that a single penicillinase-resistant beta-lactam antibiotic is appropriate and adequate under most circumstances in the treatment of *S. aureus* endocarditis. This could include a cephalosporin antibiotic for patients with known hypersensitivity to penicillins. However, under most circumstances, methicillin, nafcillin or oxacillin would be the drug of choice and these are all equally effective in the treatment of *S. aureus* infections.[16,17] However, they do differ in their routes of excretion, and methicillin is significantly and more frequently associated with adverse drug reactions when compared with oxacillin and nafcillin.[18] Oxacillin has been associated with hepatotoxicity.[19] Nafcillin is probably associated with fewer side effects than the other two and for this reason is the penicillinase-resistant penicillin derivative preferred by some experts.[20,21] It should be reemphasized however, that each of these has excellent clinical efficacy and that individual preferences need not dictate the choice of compound employed.

References 1. Weinstein L, and Rubin RH: Infective endocarditis—1973, *Progr Cardiovasc Dis* 16:239-274, 1973. 2. Stimmel B, and Dack S: Infective endocarditis in narcotic addicts. *In Infective Endocarditis,* ed. S.H. Rahimtoola, 1978 Grune & Stratton, p 195. 3. Banks T, Fletcher R, and Ali N: Infective endocarditis in heroin addicts. *Amer J Med* 55:444-451, 1973. 4. Werner AS, Cobbs CG, Kaye D, Hook EW: Studies on the bacteremia of bacterial endocarditis. *JAMA* 202:199-203, 1967. 5. Tuazon CV, Sheagren JH: Staphylococcal endocarditis in parenteral drug abusers: Source of the organism. *Ann Intern Med* 82:788-790, 1975. 6. Abrams B, Sklaver A, Hoffman T and Greenman R: Single or combination therapy of Staphylococcal Endocarditis in Intravenous drug abusers. *Ann Intern Med* 90:789-791, 1979. 7. Watanakunakorn C, Glotzbecker C: Enhancement of the effects of antistaphylococcal antibiotics by aminoglycosides. *Antimicrob Agents Chemother* 6:802, 1974. 8. Menda K, Gorbach S: Treatment of Staphylococcal endocarditis and septicemia with clindamycin (abstract no. 101). Abstracts of the 12th Interscience Conference on Antimicrobial Agent and Chemotherapy, 1974, p 52. 9. Watanakunakorn C: Clindamycin therapy of *Staphylococcus aureus* endocarditis. Clinical relapse and development of resistance to clindamycin, lincomycin and erythromycin. *Amer J Med* 60:419-426, 1976. 10. Regamey C, Libke, RD, Engelking ER, et al: Inactivation of cefazolin, cephaloridine, and cephalothin by methicillin-sensitive and methicillin-resistant strains of *Staphylococcus aureus.J Infect Dis* 131:291-294, 1975. 11. Bryant RE and Alford RH: Unsuccessful treatment of staphylococcal endocarditis with cefazolin. *JAMA* 237:569-570, 1977. 12. Quintiliani R, and Nightingale CH: Cefazolin. *Ann Intern Med* 89 (Part 1):650-656, 1978. 13. Hoeprich PD: Infective endocarditis. In Infectious Diseases: A guide to understanding and management of infectious process, Hoeprich PD, editor. Hagerstown, MD, 1972, Harper & Row, p 1045-1060. 14. Sande MS and Courtney KB: Nafcillin-gentamicin synergism in experimental staphylococcal endocarditis. *J Lab Clin Med* 88:118-124, 1976. 15. Watanakunakorn C, Baird IM: Prognostic factors in *Staphylococcus aureus* endocarditis and results of therapy with a penicillin and gentamicin. *Amer J Med Sci* 273:133-139, 1977. 16. Martin CM: Clinical status of nafcillin. *Antimicrob Ag Chemother* 4:285-291, 1974. 17. Gilbert DN, Sanford JP: Methicillin: Critical appraisal after a decade of experience. *Med Clin North Amer* 54:1113-1125, 1970. 18. Kancir LM, Tuazon CU, Cardella TA, Sheagren, JN: Adverse reactions to methicillin and nafcillin during treatment of serious *Staphylococcus aureus* infections. *Arch Intern Med* 138:909-911, 1978. 19. Dismukes WE: Oxacillin-induced hepatic dysfunction. *JAMA* 226: 861, 1973. 20. Reyman MT, Holley HP and Cobbs CG: Persistant bacteremia in staphylococcal endocarditis. *Amer J Med* 65:729-737, 1978. 21. Masur H, Murray HW, and Roberts RB: Nafcillin therapy for *Staphylococcus aureus* endocarditis. *Antimicrob Agt Chemother* 14:457-461, 1978.

The History of Smallpox: An Old Story of Current Significance

JOE WAYNE RAY, B.A. AND HIRAM C. POLK, JR., M.D.

A recent resurgence of interest in immunization led to a reexamination of the history of smallpox and efforts to erradicate this disease. An examination of the literature confirmed that the basic process of immunization, despite perceived risk and obvious expense, continues to provide promise for controlling a variety of illnesses.

THE reawakening of interest in immunization has touched virtually every medical field in this decade. Among the highlights of this revitalization have been:

1. Austrian's long pursuit and final success in the development of a vaccine for pneumococcal pneumonia.[1]
2. Active efforts to achieve practical vaccination for a variety of common viral illnesses and for influenza, hepatitis B, rabies, and bacterial meningitis.[2]
3. The appropriate clinical and laboratory pursuit of tumor specific immunity and its attempted application to amelioration of some neoplastic disease.
4. The clarification of need for narrow or broad spectrum protection depending not only upon the microbial challenge but upon the clinical situation and underlying disease.[3]
5. McCabe's[4] confirmation of Chedid's[5] postulate that a common antigen existed for many, if not all, Enterobacteriaceae, and his continuing efforts to relate spontaneous and induced immunity to that antigen, derived from a rough mutant of *Salmonella minnesota,* to clinical experimental well being.
6. The legitimate epidemiologic debate as to whether smallpox has indeed been eradicated and the wisdom of terminating standard immunization.
7. The apparent isolation and subsequent synthesis by Chedid, Lederer, and associates[6] of a 6-aminoacid fragment of the mycobacterial cell wall, muramyl dipeptide, which is fully responsible for the adjuvant action of that cruder biologic material.

With this literal renaissance in the field, the authors undertook a review of the history of immunization with special emphasis upon the illness that literally provided the generic name for the process, vaccination.

History

Smallpox is a viral infection caused by *Poxvirus variolae,* transmitted by personal contact. It has been one of the most disfiguring, and frequently fatal, illnesses of worldwide importance throughout recorded time. The destruction brought by the plague was far more rapid, but occurred only once or twice each century, whereas smallpox was a constant threat to those whom it had not yet infected. Sixty million Europeans became infected with smallpox in the 18th centu-

From the Department of Surgery, University of Louisville School of Medicine, Louisville, KY.

ry, calling the eruption "smallpox" to distinguish it from the "great pox," or syphilis. One among those who suffered was Louis XV of France, the monarch who legitimatized French surgery.

Smallpox did not reach Europe until the 10th century, and a period of 500 years elapsed before it became prevalent there. Smallpox was doubtlessly present in India and Egypt in distant times, but presumably because populations remained geographically isolated, the first great London epidemic did not break out until 1628. The Spaniards introduced the disease into Mexico early in the 16th century where it killed more than 3 million people within a short time. It then spread to the Indians of North America, killing half of that population. The New England colonists were then infected by the Indians; six epidemics occurred in Boston, the 1721 epidemic affecting half the population.[7]

In ancient times it had been noted that a person rarely contracted smallpox a second time; therefore attempts were made to guard against a dreadful attack by artificially inducing a milder form. There is some evidence that early attempts at preventive inoculation were employed in the countries about the Caspian Sea by Circassians on young girls who were destined to be sold as slaves. Woglom* describes the procedure based on a 1711 eyewitness account of the operation as performed by an elderly woman on a little Circassian girl: "After the little girl was purged with dried fruit, she was carried to a small boy who had acquired smallpox in the natural way. Several light wounds were made with three needles fastened together, and into them was rubbed matter from the pustules on the boy. After the scarifications had been dressed with leaves and lambskin, the little patient was carried home by her mother, and it was expected she would recover in five or six days."[8]

Woglom points out further that the technique varied from country to country. The Greeks represented the sign of the cross by making scratches on the forehead, both arms and chest. In China dried pustules were introduced into a nostril, left in boys, right in girls. The Turks inoculated by making several light incisions on the forehead, wrists and legs.[8]

It was Lady Mary Wortley Montagu who was responsible for the introduction of preventive smallpox inoculation into England. She accompanied her husband to Constantinople where he had been appointed Ambassador. From there in 1717 she wrote to a friend, in part, as follows:

> The smallpox, so fatal, and so general amongst us, is here entirely harmless by the invention of **ingrafting,** which is the term they give it. There is a set of old women who make it their business to perform the operation every autumn, in the month of September, when the great heat is abated. People send to one another to know if any of their family has a mind to have the small-pox: they make parties for this purpose, and when they are met . . . the old woman comes with a nutshell full of the matter of the best sort of smallpox, and asks what veins you please to have opened. She immediately rips open what you offer to her with a large needle . . . and puts into the vein as much venom as can lie upon the head of her needle, and after binds up the little wound with a hollow bit of shell; and in this manner opens four or five veins . . . . The children . . . play together all the rest of the day and are in perfect health until the eighth. Then the fever begins to seize them . . . . and in eight days time they are as well as before their illness.
>
> I am patriot enough to take pains to bring this useful invention into fashion in England; and I should not fail to write to some of our doctors very particularly about it, if I knew anyone of them that I thought had virtue enough to destroy such a considerable branch of their revenue for the good of mankind.[9]

W. H. Woglom's monograph, Discoveries for Medicine (Yale U.P., 1949) is a principal secondary source for this review. The authors encountered difficulty in locating some primary sources.

Lady Mary had all reason to fear smallpox, for her only brothers and a nephew had been killed by smallpox. She too had acquired smallpox, but was spared the disfigurement.

Despite resistance, variolation, as it was called, made its way into England, and around 1760 Robert Sutton, a man of no medical education, improved the technique. According to Sutton and his sons, they inoculated 17,000 persons with only five or six deaths.[10]

Like Lady Montagu in England, Cotton Mather in America, aroused bitter antagonism among those who listened to his descriptions of the Turkish practice of variolation, in the early 18th century. Doctor Zabdiel Boylston of Boston, did listen and inoculated his only son, six years of age, the first person known to participate in variolation in North America. The practice was violently opposed; Boylston was personally attacked and Mather received an explosive device through the window of his home.[11] However, many of the New England clergy and men such as Benjamin Franklin and Doctor Benjamin Rush had the courage to support variolation. In consequence of this support, the practice of variolation was extended and smallpox was somewhat suppressed for a time.

In spite of its apparent value, variolation did have some critical disadvantages. There was always the danger of wound infection, and variolation did produce real smallpox, though it was usually of a mild degree; a mortality rate of 1-3% was not uncommon.

A virus closely related to smallpox virus is the epidemic eruptive disease of the cow called vaccinia or cowpox. It is visible on the udders and teats as small red papules which are soon changed into vesicles and eventually into pustules that break and discharge their contents. It is spread through a herd by the hands of milkers. Though accompanied by a slight rise of temperature, it has no serious effects and is generally regarded by dairymen as of little significance.

In several parts of the world, but specifically in English dairy countries, it had long been thought that those who had acquired cowpox experienced immunity from smallpox. Naturally, then, some people made special attempts to acquire cowpox by intent.

Benjamin Jesty, a successful farmer of Dorsetshire, was one of the first well known vaccinators. In 1774 when smallpox attacked his community he was frightened for the lives of his family, but not for his own, for he had already contracted vaccinia. Further, the fact that two of his maidservants who had previously had cowpox had attended relatives suffering from smallpox without themselves being infected, made him earnestly attempt to protect his wife and two small sons. With a needle he introduced the cowpox virus into their arms. The boys had mild reactions, but Mrs. Jesty nearly lost her life. This consequence caused alarm in the family and a small uproar in the neighborhood, and Jesty never again repeated the procedure.[12]

Fifteen years later, the sons were inoculated with smallpox and found to be resistant; others who were inoculated simultaneously, and who are free of prior cowpox exposure went through the usual course of inoculated smallpox.[12]

Scientific Basis of Vaccination

On May 17, 1749 Edward Jenner was born in Berkeley in Goucestershire, England, the third son of Reverend and Mrs. Stephen Jenner.

After finishing elementary schooling at the age of 13, he was apprenticed to Mr. Ludlow, a surgeon of Sudbury to be educated in the elements of surgery and pharmacology. While there a countrywoman came for advice, and when the subject of smallpox was mentioned, she remarked, "I cannot take that disease for I have had cowpox." That statement aroused Jenner's interest, for it was the first time this idea was brought so close to home. The effect this statement had on him was profound and he constantly dwelt on the matter, so constantly that his colleagues became annoyed with him and had intentions of expelling him from the small local medical society if he continued to harass them on the subject.[13]

He discussed the protective virtues of vaccinia with other physicians who knew persons who had had cowpox but who still became infected with smallpox. Most physicians regarded this as a rum-



Fig. 1: Edward Jenner (1749-1823) vaccinating child with matter from the hand of Sarah Nelmes who had contracted cowpox milking. (Photograph reprinted with permission: Bettman Archive, Inc.)

or and ascribed the assumed protective power of vaccinia to something unique in the person who escaped smallpox, rather than to any special virtue of the vaccinia.[13]

When Jenner was 21 he moved to London to be educated under the great physiologist and surgeon, John Hunter. There he lived as a special pupil with the Hunter family for two years, before returning to Berkeley where he began his practice. In 1775 with the protective virtues of vaccinia still on his mind, Jenner began an investigation of smallpox. The work went slowly and was discontinued many times because of the periodic disappearance of cowpox from the dairies and by an unrelated illness that nearly took Jenner's life.

He discovered that there was more than one eruption which affected the udders of cows and could be transmitted to the hands of milkers; however, the dairy people had called any sore which developed "cowpox." But vaccinia was the only one that had the special ability to immunize against smallpox, so Jenner referred to all the other diseases as "spurious cowpox" to separate them from the true strain.[14] He also discovered that the cowpox virus varied widely in its immunizing power, which explained how smallpox could reoccur in persons who had already been infected with cowpox.

More than 20 years passed before Jenner completed his first vaccination. It was in May 1796

when another outbreak of cowpox occurred. Sarah Nelmes, a dairymaid, became infected on a hand that had been scratched with a thorn. With matter from her hand he infected a healthy eight-year-old boy, James Phipps, by inserting the matter into his arm through two small incisions, approximately one inch long, barely piercing the skin (Fig. 1). "On the seventh day," wrote Jenner, "he complained of uneasiness in the axilla, and on the ninth he became a little chilly, lost his appetite, and had a slight headache. During the whole of this day he was perceptibly indisposed, and he spent the night with some degree of restlessness, but on the day following he was perfectly well."[15] Jenner again inoculated him with variola six weeks later and repeated the test several months afterward, both times only a local lesion developed, unaccompanied by systemic illness. Jenner, then, inoculated active smallpox variola into 10 more people with a past history of cowpox; again no disease resulted. He thus established that the mild and benign disease cowpox protected against smallpox.

In 1797 Jenner's observations were submitted to the Royal Society but the paper was not accepted. (This response was of the sort provided several recent Nobel laureates.)[16] It was returned to him with the "friendly admonition that as he had gained some reputation by his former papers, it was not advisable to present this one."[17] He published it privately in 1798,[15] and the work has since become one of the great classics of medicine.

Much controversy arose over Jenner's discovery. The work was accepted abroad before it was approved at home. In America the work was encouraged professionally by Doctor Benjamin Waterhouse. President Thomas Jefferson, Napoleon Bonaparte and the Empress of Russia also encouraged vaccination and the method spread thereafter.

Vaccine Development

During the 19th century the number of vaccinations was limited due to an inadequate supply of cowpox virus. When arm-to-arm vaccination was employed, there was an all too frequent failure in obtaining a successful vaccination, this resulted in the need to seek fresh cowpox material. Also lesions caused by other microorganisms that were "spurious cowpox" were sometimes mistaken for vaccinia. Furthermore, in arm-to-arm vaccination there was also the possible transfer of syphilis, hepatitis virus and staphylococcus. The discovery that great amounts of vaccine could be obtained by inoculating the shaved flank of a calf resulted in a technique for the production of vaccine that is still in use today.[18]

Vaccine prepared in this manner led to a marked decrease in smallpox incidence on the continents of Europe and North America. Nevertheless it persisted until World War II; alone the United States recorded almost 10,000 cases as recently as 1939. Smallpox transmission was eventually terminated in the United States by enforcing vaccination and the availability of refrigeration for vaccine storage. But in the underdeveloped countries the disease was rampant.

It had been noted by Jenner that the vaccina virus had much better survival in a dried than in a pustular form; however, practical methods for drying large quantities were not available. Much further research was conducted in France and Germany, countries faced with the problem of supplying vaccine to their tropical colonies. It was not until the 1950's that Leslie Collier of the Lister Institute developed an effective technique for large scale production of freeze dried vaccine. The technique employed "differential centrifugation to partially purify the crude pulp suspension and added peptone. The material was then freeze dried in ampules for distribution and the vaccine subsequently reconstituted for use with a glycerol solution."[19] Collier's vaccine was found to be still potent after two years storage at 45° C, a development crucial to smallpox eradication.

Modern Efforts to Eradicate

A Swiss delegate to the 1926 International Sanitary Conference summed up the problem: "Smallpox has, in reality, no place in an international convention. It is not a pestilential disease in the proper sense of the term, it is in effect a disease that exists everywhere. There is probably not a single country of which it can be said that there are no cases of smallpox."[20]

In 1948 the World Health Organization began to cautiously approach smallpox control. In 1950, the Pan American Sanitary Organization proposed that programs to eradicate smallpox be initiated in Central and South America.[21] The practicality of such an approach had already been demonstrated in the elimination of smallpox from Europe and North America, as well as other countries such as the Philippines.

In nine years with assistance from the Pan American Health Organization smallpox was eliminated from all but five countries of the Americas. That year, 1959, interestingly at the instigation of the U.S.S.R., **worldwide** smallpox eradication was declared a goal by the World Health Assembly. It suggested that countries in which the disease was endemic should undertake programs of vaccination and countries who were free of the disease should voluntarily provide contributions in support of the effort.[22] Shortly after, several countries gave vaccine donations and countries with endemic smallpox began mass vaccination.

Needless to say, progress was slow, and difficulties were soon experienced by countries that did undertake the program of mass vaccination. Because of improper preservation and mass production problems, the quality of vaccine was frequently in doubt and there was no mechanism to systematically monitor the quality; vaccination failures were common. Some of the smaller countries which achieved success in their programs were set back by the importation of smallpox across open borders from infected neighboring countries. Little progress had been made by 1966 and some countries were discouraged by what had been achieved. In 1966, the World Health Assembly developed a fully coordinated, intensified global eradication program, to achieve eradication within 10 years.[23]

Despite the reservations of many, the remote areas which had to be penetrated, and the reluctance of some countries to participate, the program was instituted January 1, 1967 with the goal of stopping the transmission of smallpox by December 31, 1976.

Prior to 1967 progress against smallpox had been measured in the number of vaccinations performed. It was true that a program of vaccination was important, but the necessary objective was to eliminate the disease. New strategy was developed: vaccination and surveillance. The reporting of all known cases was essential if outbreaks were to be identified and contained. One hundred and twenty months of dedicated and difficult labor, and the utilization of $110,000,000, found the world's last known smallpox victim in Ethiopia.[23] It is believed that the eradication of smallpox has been achieved. However, two full years of intensive search must be completed to be certain that the transmission of smallpox is not still occurring. This certification will likely come in late 1979 or early 1980.

Closing Comments

The apparent eradication of an illness from the face of the earth has both practical and philosophic significance. It appears that the only well documented recent illness arose admidst the peculiar circumstances of laboratory study of the organism. One must weigh carefully the impact and expense of maintaining or closing out a form of uniquely successful medical intervention. These efforts in true international health cooperation provide at once a basis for an ultimate medical achievement; on the other hand, renewed interest in the basic process of immunization and its safe enhancement provide a realistic and honest promise for improved control of a whole variety of illnesses.

References 1. Austrian R: Vaccines of pneumococcal capsular polysaccharides and the prevention of pneumococcal pneumonia. In: *The Role of Immunological Factors in Infections, Allergic and Autoimmune Processes,* edited by RF Beers and EG Bassett, Raven Press, New York, pp. 79-89, 1976. 2. Barton C: Concensus Programs Vaccines D and A Research. *JAMA* 241:1358-1360, 1979. 3. Polk HC, Jr, Borden S, and Aldrete JA: Prevention of pseudomonas respiratory infection in a surgical intensive care unit. *Ann Surg* 177:607-615, 1973. 4. McCabe WR, Bruins SC, Craven DE, and Johns M: Cross-reactive antigens: their potential for immunization-induced immunity to gram-negative bacteria. *J Infect Dis* 136(suppl):S161, 1977. 5. Chedid L, Parent M, Parent F, and Boyer F: A proposed mechanismn for natural immunity to enterobacterial pathogens. *J Immunol* 100:292-301, 1968. 6. Chedid L, Lamensans A, and Prixova J: Comparison of the effects of an antibacterial leukocytic extract and the serum endotoxin-detoxifying component of lipopolysaccharides extracted from rough and smooth Salmonella. *J Infect Dis* 121:634-639, 1970. 7. Haggard HW: *Devils, Drugs and Doctors.* Halcyon House. New York, pp. 22ff. 8. Woglom WH: *Discoverers of Medicine.* Yale University Press, New Haven, p. 66, 1949. 9. Woglom, pp. 67-68. 10. Bishop WJ: Thomas Dimsdale M.D., F.R.S. (1712-1800) and the inoculation of Catherine the

Great of Russia. *Ann Med Hist* 4:321-338, 1932. 11. Woglom, p. 71. 12. Gould GM: Medical discoveries by the non-medical. *JAMA* 1477-1487, 1903. 13. Woglom, p. 76. 14. Woglom, p. 77. 15. Jenner E: *The Causes and Effects of the Variolae Vaccine.* Gryphon Edition, Ltd., Birmingham, Ala., 1798, 1978 (sp. ed.). 16. Commoner B: Peering at peer review. *Hospital Practice* 13:25, 1978. 17. Green JR: *Medical History for Students.* Charles C. Thomas, Springfield, Ill., p. 52, 1968. 18. Singh LM: History and recent developments of smallpox vaccine. *Ind Med Assoc J* 68:105-107, 1977. 19. Collier LH: The development of a stable smallpox vaccine. *J Hygiene* 53:76-101, 1955. 20. Henderson DA: Eradication of a killer. In: *The Encyclopedia Britanica.* Encyclopedia Britanica, Inc., Chicago, Ill, pp 125-141, 1979. 21. Fredericksen H, Munoz NT, and Molina AJ: Smallpox eradication. *Public Health Report* 74:771-778, 1959. 22. Henderson DA: The global strategy. *World Health* October: 8-16, 1972. 23. Merklejohn G: The end of smallpox. *Adv Intern Med* 23:385-404, 1978.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

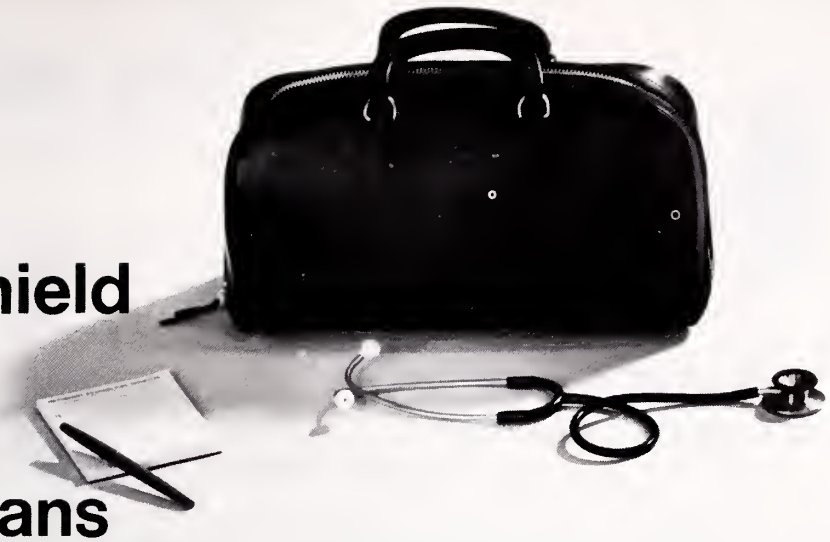
References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

1979 Blue Shield Report To Physicians



Membership	**(as of December 31)**	1979	1978
Total Membership		1,432,295	1,417,271
Net Enrollment Gain or Loss (Members)		15,024	16,665
Percent of Net Increase or Decrease		1.06%	1.19%
New Employee Groups Enrolled		2,255	2,382

Claims Experience Type of Contract	Number of Services Paid		Amount paid for Member Services	
	1979	1978	1979	1978
Indemnity	609,608	514,914	$22,473,344	$19,236,614
Usual, Customary and Reasonable*	673,470	553,530	36,238,135	28,701,460
Extended Benefits, BCBS Medicare Supplement, Major Medical and F.E.P. Supplemental	318,956	236,864	28,345,596	21,101,642
Grand Totals	**1,602,034**	**1,305,308**	**$87,057,075**	**$69,039,716**

*177 Usual, Customary and Reasonable claims, representing less than .03% of total claims submitted, required Peer Review.

Blue Cross Blue Shield
of Kentucky

Helping Kentuckians Prepay
The Cost of Health Care

Professional Relations Division
9901 Linn Station Road, Louisville, Kentucky 40223 • (502) 423-2150

®'Reg. Mark Blue Cross Association • ®'Reg. Mark Blue Shield Association.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

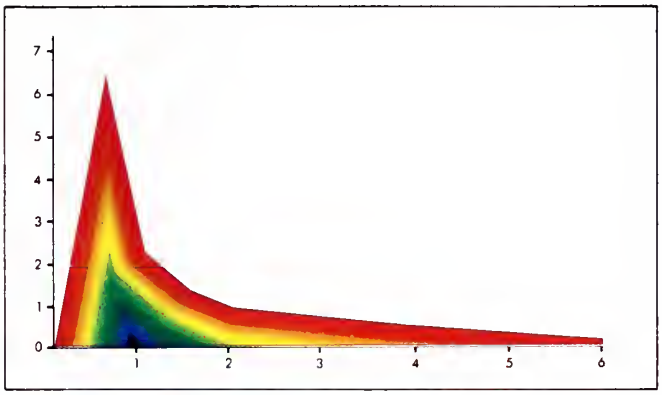
Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

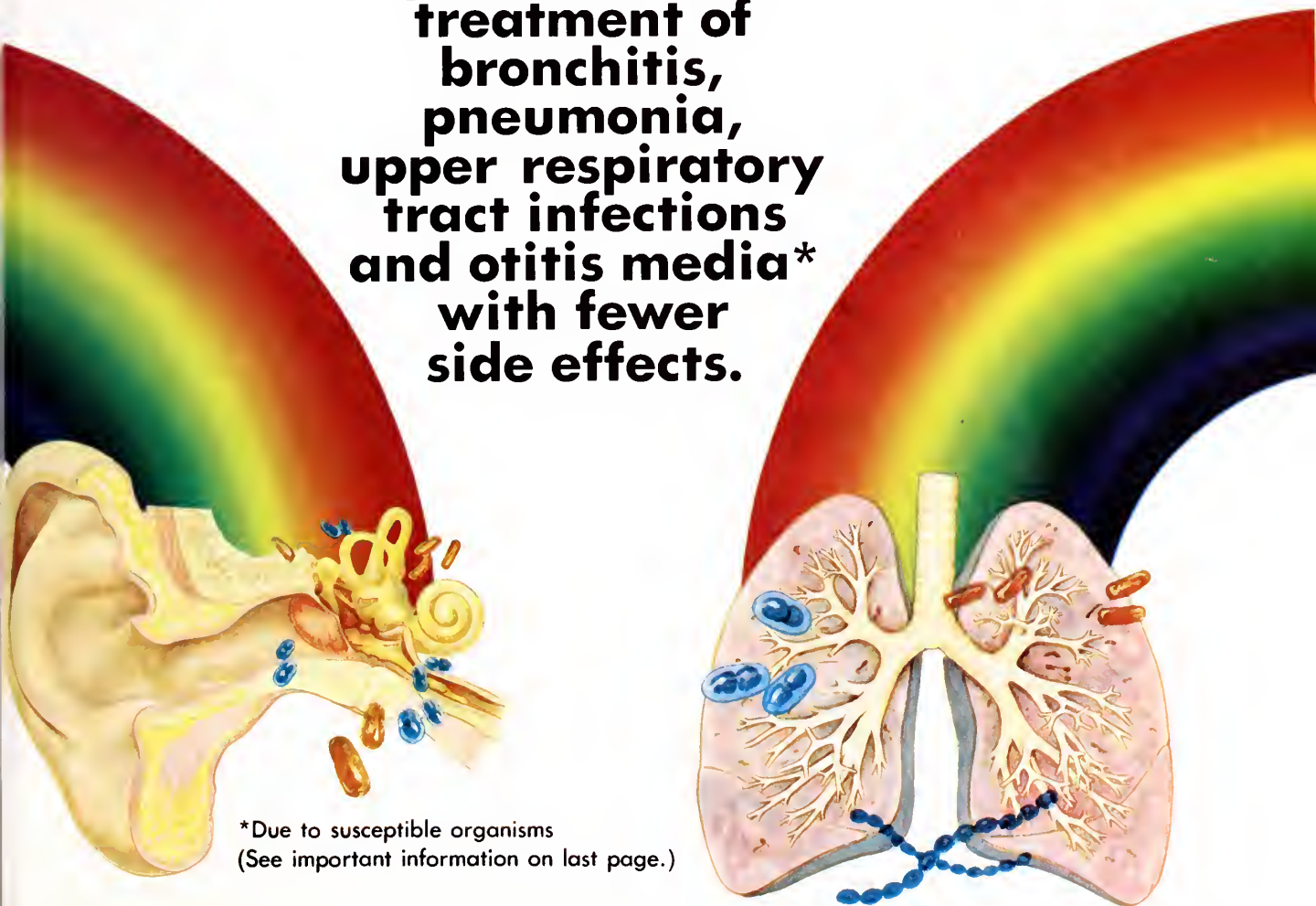
more than just spectrum



New CYCLAPEN®

(cyclacillin) Tablets/ Suspension

Efficacy proven in the treatment of bronchitis, pneumonia, upper respiratory tract infections and otitis media* with fewer side effects.



*Due to susceptible organisms
(See important information on last page.)

New CYCLAPEN®
(cyclacillin) Tablets/ Suspension

efficacy with fewer side
ampicillin confirmed in
studies of 2,581

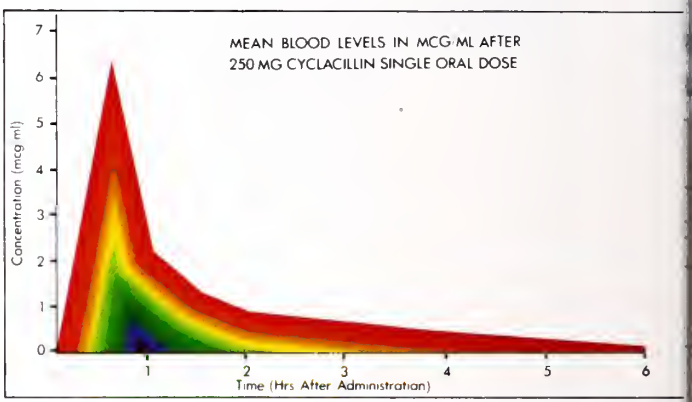
Rapid, virtually complete absorption from GI tract

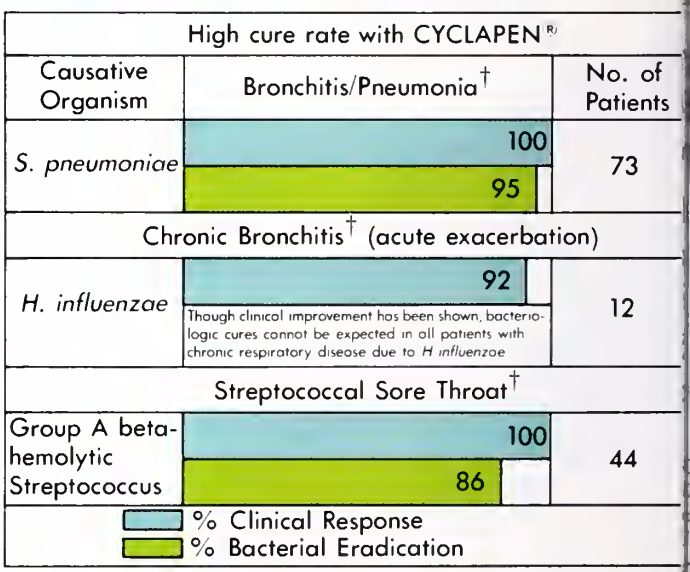
Rapid onset of action—mean peak serum levels within 30 minutes

Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)

Rapidly excreted unchanged in the urine—1½ times faster than ampicillin







more than just spectrun
in bronchitis, pneumoni
and upper respiratory tract infections†

*Includes all patients treated. 2,415 evaluated for safety; 1,819 evaluated for efficacy.

†Due to susceptible organisms.

Copyright © 1979, Wyeth Laboratories. All rights reserved.

ffects than
louble-blind
patients*

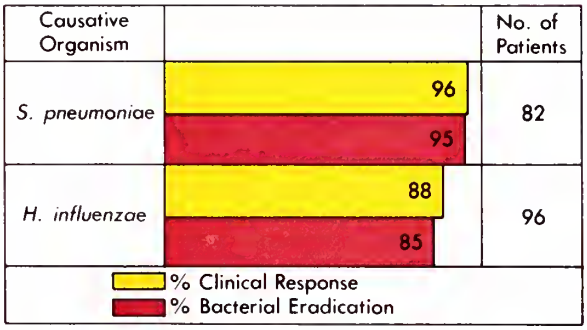


wer side effects with CYCLAPEN® in
uble-blind studies to date[1,2]

Total number of drug-related side effects in all patients	
CYCLAPEN®	128 of 1,286 (10%) of patients
ampicillin	202 of 1,129 (18%) of patients
Difference statistically significant (P <0.001)	

more than just spectrum in otitis media

Clinical efficacy of CYCLAPEN® in otitis media†



'CLAPEN® (cyclacillin)
ective for bronchitis, pneumonia,
d upper respiratory tract infections†

Excellent clinical results in bronchitis, pneumonia and upper respiratory tract infections

Significantly lower incidence of diarrhea and skin rash

more than just spectrum

CYCLAPEN®

(cyclacillin) Tablets/ Suspension

old JA, Hegarty CP, Deitch MW, Walker BR: auble-blind clinical trials of aral cyclacillin nd ampicillin, *Antimicrab Ag Chemather* 5:55-58, (Jan.) 1979.

ata on file, Wyeth Laboratories.

eth Laboratories
Philadelphia, Pa 19101

: important information on next page)

New from Wyeth Laboratories

CYCLAPEN®
(cyclacillin) Tablets/Suspension



more than just spectrum in bronchitis, pneumonia, upper respiratory tract infections and otitis media*

- Rapid, virtually complete absorption from GI tract
- Rapid onset of action—mean peak serum levels within 30 minutes
- Exceptionally high peak blood levels—3 times greater than ampicillin (clinical efficacy may not always correlate with blood levels)
- Rapidly excreted unchanged in the urine—1½ times faster than ampicillin
- Significantly fewer episodes of diarrhea and skin rash than reported with ampicillin in studies to date
- Excellent clinical response and outstanding bacterial eradication documented in double-blind studies involving 2,581 patients
- New CYCLAPEN® Suspension—great-tasting raspberry punch flavor

*Due to susceptible organisms.

How Supplied

CYCLAPEN® (cyclacillin) tablets:
250 mg scored tablets
500 mg scored tablets

CYCLAPEN® (cyclacillin) for oral suspension
125 mg per 5 ml:
100 ml and 200 ml bottles
250 mg per 5 ml:
100 ml and 200 ml bottles

Indications

Cyclapen-® (cyclacillin) has less in vitro activity than other drugs in the ampicillin class of antibiotics and its use should be confined to the indications listed below.

Cyclapen-® is indicated for the treatment of the following infections:

RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis Media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any infections caused by *E. coli* and *P. mirabilis* other than urinary tract infections.)

NOTE: Cultures and susceptibility tests should be performed initially and during treatment to monitor the effectiveness of therapy and the susceptibility of bacteria. Therapy may be instituted prior to the results of sensitivity testing.

Contraindications

The use of this drug is contraindicated in individuals with a history of an allergic reaction to penicillins.

Warnings

CYCLACILLIN SHOULD ONLY BE PRESCRIBED FOR THE INDICATIONS LISTED IN THIS INSERT.

CYCLACILLIN HAS LESS *IN VITRO* ACTIVITY THAN OTHER DRUGS OF THE AMPICILLIN CLASS ANTIBIOTICS. HOWEVER, CLINICAL TRIALS HAVE DEMONSTRATED THAT IT IS EFFICACIOUS FOR THE RECOMMENDED INDICATIONS.

SERIOUS AND OCCASIONAL FATAL HYPERSENSITIVITY (ANAPHYLACTOID) REACTIONS HAVE BEEN REPORTED IN PATIENTS RECEIVING PENICILLIN.

ALTHOUGH ANAPHYLAXIS IS MORE FREQUENT FOLLOWING PARENTERAL ADMINISTRATION, IT HAS OCCURRED IN PATIENTS ON ORAL PENICILLINS. THESE REACTIONS ARE MORE APT TO OCCUR IN INDIVIDUALS WITH A HISTORY OF SENSITIVITY TO MULTIPLE ALLERGENS. THERE ARE REPORTS OF PATIENTS WITH A HISTORY OF PENICILLIN HYPERSENSITIVITY REACTIONS WHO EXPERIENCED SEVERE HYPERSENSITIVITY REACTIONS WHEN TREATED WITH A CEPHALOSPORIN. BEFORE THERAPY WITH A PENICILLIN, CAREFUL INQUIRY SHOULD BE MADE ABOUT PREVIOUS HYPERSENSITIVITY REACTIONS TO PENICILLINS, CEPHALOSPORINS, AND OTHER ALLERGENS. IF AN ALLERGIC REACTION OCCURS, THE DRUG SHOULD BE DISCONTINUED AND APPROPRIATE THERAPY SHOULD BE INITIATED. SERIOUS ANAPHYLACTOID REACTIONS REQUIRE IMMEDIATE EMERGENCY TREATMENT WITH EPINEPHRINE. OXYGEN, INTRAVENOUS STEROIDS, AIRWAY MANAGEMENT, INCLUDING INTUBATION, SHOULD ALSO BE ADMINISTERED AS INDICATED.

Precautions

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

PREGNANCY: Pregnancy Category B. Reproduction studies have been performed in mice and rats at doses up to ten times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when cyclacillin is administered to a nursing woman.

Adverse Reactions

The oral administration of cyclacillin is generally well tolerated.

As with other penicillins, untoward reactions of the sensitivity phenomena are likely to occur, particularly in individuals who have previously demonstrated hypersensitivity to penicillins or in those with a history of allergy, asthma, fever, or urticaria.

The following adverse reactions have been reported with the use of cyclac
diarrhea (in approximately 1 out of 20 patients treated), nausea and vom
(in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isol
instances of headache, dizziness, abdominal pain, vaginitis, and urticaria
been reported. (See WARNINGS.)

Other less frequent adverse reactions which may occur and that have
reported during therapy with other penicillins are: anemia, thrombocytop
thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. T
reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been repor

Dosage and Administration

INFECTION*	ADULTS	CHILDREN
		Dosage should not n in a dose higher than for adults.
Respiratory Tract		
Tonsillitis & Pharyngitis**	250 mg q.i.d. in equally spaced doses	body weight <20 kg (<44 lbs) 125 mg q.i.d. equally spaced doses body weight >20 kg (>44 lbs) 250 mg q.i.d. equally spaced doses
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d. in equally spaced doses	50 mg/kg/day q.i.d. equally spaced doses
Chronic Infections	500 mg q.i.d. in equally spaced doses	100 mg/kg/day q.i.d. equally spaced doses
Otitis Media	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 mg/kg/d equally spaced dose pending on severity
Skin & Skin Structures	250 mg to 500 mg q.i.d. in equally spaced doses depending on severity	50 to 100 mg/kg/d equally spaced dose pending on severity
Urinary Tract	500 mg q.i.d. in equally spaced doses	100 mg/kg/day in eq spaced doses.

*As with antibiotic therapy generally, treatment should be continued minimum of 48 to 72 hours after the patient becomes asymptomatic or evidence of bacterial eradication has been obtained.

**In infections caused by Group A beta-hemolytic streptococci, a minimu 10 days of treatment is recommended to guard against the risk of rheu fever or glomerulonephritis.

In the treatment of chronic urinary tract infection, frequent bacteriologi clinical appraisal is necessary during therapy and may be required for s months afterwards.

Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure

Based on a dosage of 500 mg q.i.d., the following adjustment in d interval is recommended:

Patients with a creatinine clearance of >50 ml/min need no age interval adjustment.

Patients with a creatinine clearance of 30-50 ml/min should receiv doses every 12 hours.

Patients with a creatinine clearance of between 15-30 ml/min s receive full doses every 18 hours.

Patients with a creatinine clearance of between 10-15 ml/min s receive full doses every 24 hours.

In patients with a creatinine clearance of ≤10 ml/mi serum creatinine values of ≥ 10 mg%, serum cyclacillin levels are re mended to determine both subsequent dosage and frequency.

Wyeth Laboratories
Philadelphia, Pa 19101

Sepsis After Splenectomy: Current Status of Pneumococcal Vaccine

Splenectomy creates a unique susceptibility to fulminant septicemia with pneumococci or hemophilus organisms. In this Grand Rounds an instance of fulminant pneumococcemia in a patient with an atrophic spleen is presented. Current concepts of the management and prevention of this and related problems of pneumococcal infection are discussed, with emphasis on the use of pneumococcal vaccine.

Introduction

The susceptibility of asplenic individuals to serious bacterial infections has been recognized for many years. In 1970, Bisno and Freeman[1] confirmed an association between asplenia and overwhelming pneumococcal sepsis with disseminated intravascular coagulation (DIC). The unique aspects of this syndrome are **a.** extremely large numbers of bacteria in the blood (diplococci are often visible on peripheral blood smears **b.** florid DIC **c.** a frequent lack of a detectable peripheral focus on infection and **d.** a fluminant course, with death in as little as eight hours. This uncommon complication of splenectomy is observed most often in children but can occur at any age.[1-5] Individuals with either surgical asplenia or with splenic atrophy caused by various diseases (e.g., sickle cell anemia) are at risk. The recent use of splenectomy for staging of Hodgkins disease has further increased the number of patients at risk.

From the Division of Infectious Diseases, Department of Medicine, University of Kentucky College of Medicine and Veterans Administration Hospital, Lexington, Kentucky

Case Report

A 58-year-old white man was admitted to the Veterans Administration Hospital in Lexington with fever and lethargy. He had adult onset diabetes mellitus of nine years duration but was otherwise in good health until three weeks before admission when he developed gastrointestinal upset and diarrhea. These symptoms resolved, but two weeks before admission he developed bronchitis with a non-productive, nagging cough. This also resolved, but on the morning of the day of his admission to the hospital, he complained of an increasing frontal headache, lethargy and a shaking chill. At home his temperature reached 104°F, and he was admitted to the V.A. Hospital in the afternoon.

On admission, he appeared acutely ill. His temperature was 104.6°F and his blood pressure was 130/80. He was extremely lethargic, but the neck was supple and there were no focal neurologic signs. Rales were heard at the base of the right lung. Laboratory studies revealed a blood leukocyte count of 12,400/cu. mm with a left shift, and the hematocrit was 42%. The platelet count was 245,000/cu. mm and the fibrogen was 400 mg/dl. The prothrombin and partial thromboplastin times were within normal limits. A roentgenogram of the chest was interpreted as normal. Arterial blood gases showed a pH of 7.57, a PO_2 of 58, and

a PCO_2 of 24 with the patient breathing room air. The blood glucose was 305 mg% and the blood urea nitrogen was normal. Results of a lumbar puncture were within normal limits.

Fluid and insulin were adminstered. The patient remained lethargic, confused and ferbrile. Twelve hours after admission (2 a.m.) a repeat chest roentgenogram was still clear but examination of a peripheral blood smear showed numerous gram-positive diplococci. Because of this finding, smears of the blood cultures obtained at admission were also examined and they revealed gram-positive diplococci. Penicillin G, two million units q four hours was started immediately.

Within two hours the patient was in shock with a blood pressure of 60/40. The central venous pressure was 2 cm and fluids were increased to expand the circulating volume. Shortly thereafter, hemorrhage from the gastrointestinal tract and from sites of previous venipunctures developed. The fibrinogen was 32 mg/dl, the platelet count was 19,000/cu. mm and the prothrombin and partial thromboplastin times were markedly prolonged. Heparin therapy was begun. Respiratory embarrassment developed, possibly secondary to pulmonary hemorrhage, and the patient was intubated and treated for systemic acidosis. About 24 hours after admission, asystole developed. Attempts at resuscitation were unsuccessful. *Streptococcus pneumoniae* was eventually recovered from the admission blood cultures.

At autopsy, bilateral bronchopneumonia was found and numerous gram-positive diplococci were seen with tissue stains. The spleen weighed only 15 gm and was striking in appearance, being covered externally by a white fibrotic capsule. Only a minimal remnant of the normal parenchyma remained on microscopic exam. The splenic artery was patent throughout. Fibrin deposits were detected in vessels of several organs including the liver, kidneys and adrenals. This finding appeared consistent with DIC. Focal hemorrhage was noted in the adrenals.

Clinical Findings

The case illustrates several findings of pneumococcemia in the absence of normal splenic function. The patient was 58-years-old and had idiopathic atrophy of the spleen. Idiopathic atrophy and functional hyposplenism are well-known antecedents of the syndrome,[1-5] as well as surgical asplenia. In the present case, splenic atrophy was not suspected until autopsy. The symptoms at the beginning of the illness were nonspecific as has often been noted by others.[1,2,4] Pneumonia was suspected, and was eventually proved at autopsy, but roentgenograms during life did not reveal pneumonia. The fulminant course experienced by the patient, with development of DIC, shock and death over 24-hours is characteristic.

Mechanism of Irreversible Injury

The origins of the toxemia and shock which can lead to a fatal outcome in pneumococcal infection are not known. In the asplenic patient, it is thought that the uniquely high concentration of pneumococci in the blood (10^6 or more/ml) may be a major factor.[3,5] *In vitro* such a high concentration of pneumococci can trigger the coagulation, complement and kininogen systems, leading to the generation of vasoactive fragments of these proteins.[6,7] If this occurs on a massive scale within the circulation, it may lead to irreversible shock. The presence of visible pneumococci on the peripheral blood smear, as in the present case, confirms that the number of organisms in the blood is extremely large.[3] The reason for this great proliferation of bacteria in the circulation in the asplenic patient is not certain. The spleen represents only 10% of the capacity of the reticuloendothelial system. However, it may be the only site in which the very early IgM antibody to pneumococcal capsular polysaccharide is formed, and these small amounts of early antibody may be crucial to clearing pneumococci from the blood.[5,8,9]

Shock and death in pneumococcal infection is, of course, not limited to asplenic patients. The mortality in garden-variety pneumococcal pneumonia is about 10%. Most of these patients expire within the first five days of hospitalization and while receiving antibiotic therapy. Presumably they are simply not able to withstand the physiologic burden of the infection.[10]

Management

Penicillin G, one to two million units q four hr i.v., should be administered as soon as the di-

agnosis of fulminant pneumococcemia is suspected. Administration of i.v. fluids until the central venous pressure is in the low normal range is very important. If there is clinically significant bleeding with DIC, heparin may be administered. The value of corticosteroids has not been evaluated. Vasopressors are contraindicated but dopamine might be useful if volume expansion fails to improve tissue perfusion (as judged by mental clarity and urine output).

Prevention

Because of the poor prognosis with pneumococcemia in the asplenic or hyposplenic individual, prevention is the only satisfactory approach to the problem. Prophylactic penicillin G has been advocated, but its efficacy has not been well-documented and compliance has been cited as a major difficulty.[11] In addition, there is a potential problem of producing penicillin-resistant pneumococci which can infect the individual. It is unclear whether penicillin prophylaxis may compromise the age-related increase in immunologic resistance to pneumococci. As an alternative, use of pneumococcal vaccine for prophylaxis has been suggested. Because the vaccine protects against only the 14 most prevalent serotypes of pneumococcus, and is not reliably immunogenic before age two or in certain groups of patients with malignancies or on chemotherapy, some have recommended antibiotic prophylaxis plus vaccine in certain high risk groups.[11]

Pneumococcal Vaccine

The pneumococcal vaccine is one of a new generation of commercially produced bacterial vaccines composed of purified polysaccharides.[12] Polysaccharides differ considerably from proteins as immunogens, as detailed in Table 1. Accordingly, we must get used to using polysaccharide vaccines somewhat differently from, for example, tetanus toxoid. With polysaccharides, a single immunizing dose is used. Side effects have been minimal for the most part and have consisted principally of low grade fever and local soreness.[12] Whether repeat immunization is required, and how often, is not clear. It is clear that revaccination within the first year or two of the initial vaccination in individuals over two years of age does not boost antibody responses and does cause a much increased incidence of fever and local reactions.[13] In some cases revaccination has caused systemic hypersensitivity reactions.

Because of the possibility of adverse reactions, it has been recommended that patients with pneumococcal pneumonia not be vaccinated during the acute illness, because antibody which has developed to the infecting serotype might give a reaction with antigen of the same serotype in the vaccine. Pneumococcal vaccine can be given at the same time as influenza vaccine, if the vaccines are administered separately and at different sites.[14]

There are patients who cannot be expected to respond optimally to pneumococcal vaccine (Ta-

TABLE 1.
DIFFERENCES BETWEEN PURIFIED POLYSACCHARIDE AND PROTEIN ANTIGENS

ANTIGEN	PROTEINS	POLYSACCHARIDES
MAIN STRUCTURAL UNIT	AMINO ACID	CARBOHYDRATE
ADULT IMMUNIZING DOSE	0.1 mg	50 ug
INITIATION OF ANTIBODY RESPONSE	T CELL DEPENDENT	T CELL INDEPENDENT
INITIAL VACCINATION	HIGH ANTIBODY LEVELS-SHORT LIVED	LOW ANTIBODY LEVELS-LONG LIVED
REPEAT VACCINATION	HIGH ANTIBODY	LITTLE CHANGE IN ANTIBODY
ANTIGEN PERSISTENCE IN TISSUE	SHORT	LONG

TABLE 2
Conditions that decrease antibody responses to pneumococcal vaccine

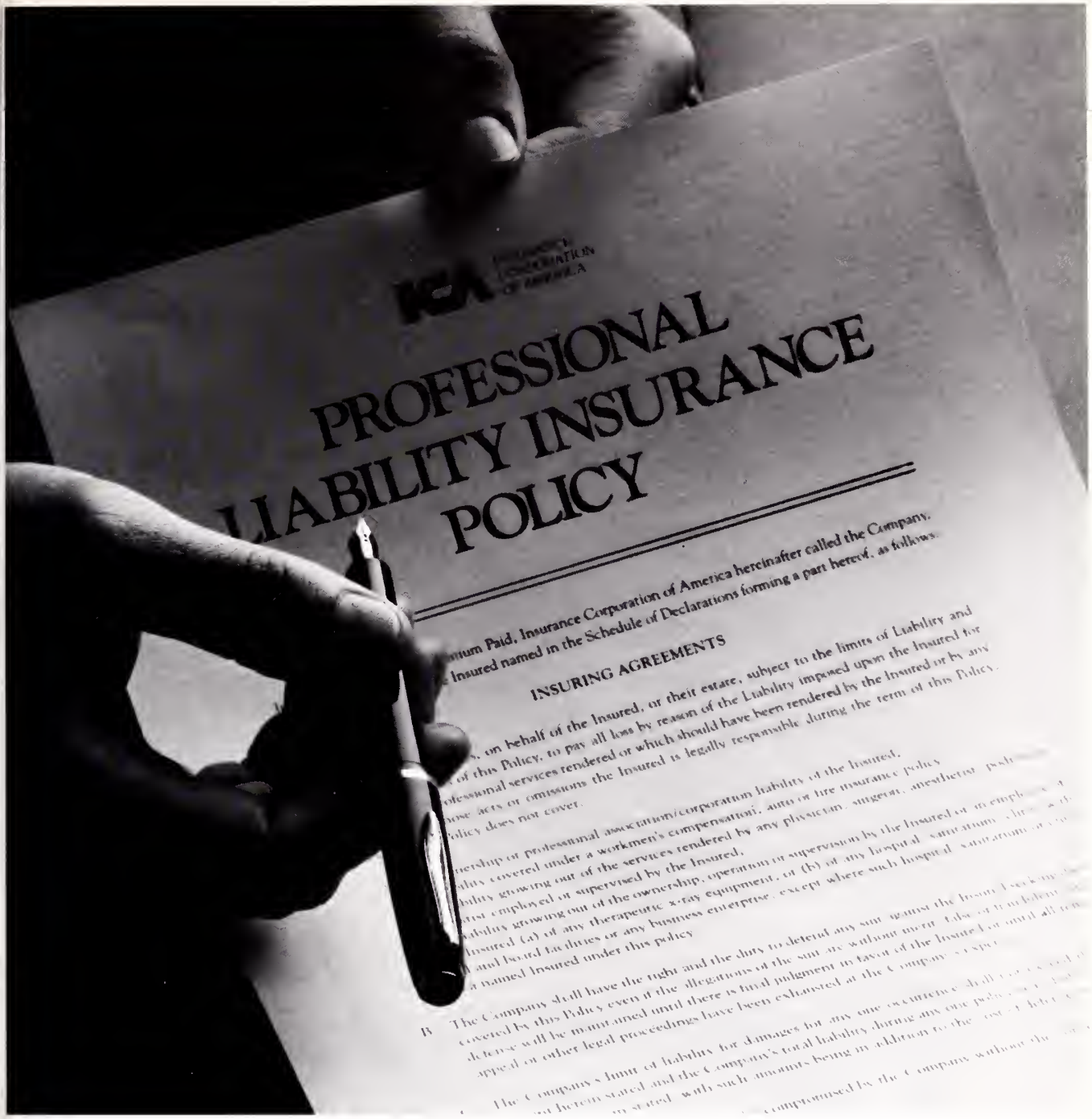
1. Age less than two years.
2. Hypoglobulinemia of any cause, including multiple myeloma and chronic lymphocytic leukemia.
3. Intense immunosuppressive therapy.
4. Chronic hemodialysis (mild decrease).
5. Failing renal allograft.

Note: Splenectomy *per se* does not prevent a normal serum antibody response to vaccination.

ble 2). These include individuals with significant hypogammaglobulinemia of any cause, including those with multiple myeloma or some patients with chronic lymphocytic leukemia. The use of immunosuppressive drugs including prolonged use of high doses of corticosteroids would be expected to reduce antibody responses to the vaccine. Patients with sickle cell disease,[15] anatomical asplenia and many chronic illnesses such as diabetes may have a good antibody response and warrant vaccination. The absence of the spleen per se does not seem to affect the peak levels of serum antibody after vaccination. Patients with renal disease with chronic hemodialysis have diminished antibody responses to vaccination but may still have an adequate response for protection.[16] In renal allograft recipients, the antibody response varies directly with the level of function of the graft, and many of these patients may respond to vaccination. In patients with Hodgkins disease the response to vaccination is depressed in proportion to the amount of radiation and chemotherapy received and the time since treatment.[17] Patients with Hodgkins with splenectomy probably should be vaccinated, with the recognition that protection is incomplete.

References 1. Bisno AL and Freeman JC, The syndrome of asplenia, pneumococcal sepsis, and disseminated intravascular coagulation. *Ann Intern Med* 72: 389,1970. 2. Whitaker AN, Infection and the spleen: association between hyposplenism, pneumococcal sepsis and disseminated intravascular coagulation. *Med J Aust* 1: 1213, 1969. 3. Torres J and Bisno AL, Hyposplenism and pneumococcemia: visualization of *Diplococcus pneumoniae* in the peripheral blood smear. *Am J Med* 55: 851, 1973. 4. Wenk RE and Dutta D, Coagulopathic, cryptogenic pneumococcemia. *Am J Clin Path* 64: 405, 1975. 5. Coonrod JD and Leach RP, Antigenemia in fulminant pneumococcemia. *Ann Intern Med* 84: 561,1976. 6. Guckian, JC, Effect of pneumococci on blood clotting, platelets, and polymorphonuclear leukocytes. *Infect Immun* 12: 910, 1975. 7. Coonrod JD and Jenkins S, Interaction of pneumococcal antigen with complement in rats. *Infect Immun* 23: 626,1979. 8. Rowley, DA, Formation of circulating antibody in the splenectomized human being following intravenous injection of heterologous erythrocytes. *J Immunol* 65: 515, 1950. 9. Ellis EF and Smith RT, The role of the spleen in immunity: with special reference to the post-splenectomy problem in infants. *Pediatrics* 37: 111, 1966. 10. Austrian R and Gold J, Pneumococcal bacteremia with especial reference to bacteremic pneumococcal pneumonia. *Ann Intern Med* 60: 759. 1969. 11. Ahonkhai VI, Landesman SH, Fikrig SM, Schmalzer EA, Brown, AK, Cherubin, CE and Schiffman G, Failure of pneumococcal vaccine in children with sickle cell disease. *New Engl J Med* 301: 26, 1979. 12. Austrian R, Douglas RM, Schiffman G, Coetzee AM, Koornhof HJ, Hayden-Smith, S. and Reid, R.D.W., Prevention of pneumococcal pneumonia by vaccination. *Trans Assoc Am Physicians* 89: 184, 1976. 13. Borgond JM, McLean AA, Vella PP, Woodhour AF, Canepa I, Davidson, W.L. and Hilleman, M.R., Vaccination and revaccination with polyvalent pneumococcal polysaccharide vaccines in adults and infants. *Proc Soc Exp Biol Med* 157: 148, 1978. 14. Carlson AJ, Davidson WL, McLean AA, Vella PP, Weibel RE, Woodhour AF and Hilleman MR, Pneumococcal vaccine: dose, revaccination, and coadministration with influenza vaccine. *Proc Soc Exp Biol Med* 161: 558, 1979. 15. Ammann AJ, Addiego J, Wara DW, Lubin B, Smith WB and Mentzer WC, Polyvalent pneumococcal-polysaccharide immunization of patients with sickle cell anemia and patients with splenectomy. *New Engl J Med* 297: 897, 1977. 16. Simberkoff MS, Schiffman G, Katz L, Spicehandler J, Moldover NH and Rahal JJ Jr, Diminished radioimmunoassay antibody responses and opsonic titers in chronic hemodialysis patients following pneumococcal capsular polysaccharide vaccination. (Abstract No. 795) program and abstracts of the 19th Interscience Conference on Antimicrobial Agents and Chemotherapy, 1979. 17. Siber GR, Weitzman SA, Aisenberg AC, Weinstein HJ and Schiffman G, Impaired antibody response to pneumococcal vaccine after treatment for Hodgkin's disease. *New Engl J Med* 299: 442, 1978.

J. Donald Coonrod, M.D.



PUT A CONTRACT OUT ON FRIVOLOUS CLAIMS.

Frivolous claims can be a nightmare. Especially if your malpractice insurance company doesn't stand by you. And unfortunately, all too many don't.

For instance, most malpractice insurance policies give you no say in whether to fight or settle a claim. And if you do have a say, you can be hit with a costly penalty for going to court. Another thing. Many companies don't pay all legal expenses. And most companies seldom use lawyers to process cases. Claims are often handled only by claims adjusters.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working for doctors. So we know the strong coverage and knowledgeable service physicians need from their liability insurance. And since we specialize in this one field, we can offer a superior policy for a realistic premium. Premiums based on actual costs in your state.

So select the policy with the protection you need. Put a contract out on frivolous claims. For more information contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas Phone 1-800-231-2615

INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

Morris E. Chafetz, M.D.,
Founding Director of the National
Institute on Alcohol Abuse and Alcoholism,
is pleased to announce
the opening of a private
residential alcoholism treatment facility
in Charleston, South Carolina.



FENWICK HALL

John H. Magill, Executive Director. Layton McCurdy, M.D., Medical Director. Phone 803-559-2461.

Health Priorities in Affluent Countries

A term popular today is "diminishing resources"—diminishing quality air, diminishing food, diminishing fuel supplies—and diminishing health resources.

A provocative article regarding health resources in developing countries was published several months ago in the New England Journal of Medicine.[1] The basic premise of the authors is this: priorities for disease control should be based on the prevalence of a disease, its asssociated morbidity, and feasibility of control. One example of a disease deserving high control is malaria. Malaria is still an extremely prevalent disease with significant morbidity and mortality. Furthermore, it can be controlled through chemoprophylaxis or mosquito spraying programs.

Conversely, programs designed to control ascarisis deserve low priority. Ascariasis is extremely prevalent with an estimated one billion cases throughout the world. Morbidity and mortality are low, however, and treatment with drugs may be prolonged. Ultimate control of ascariasis would require an enormous expenditure of money to improve sanitation facilities and practices in third world countries.

Even in this most affluent of nations, we now hear of limited and diminishing health resources. If this is a certainty, should priorities for disease control be given greater attention in this country? Priorities of sorts already abound. One need only look at the National Institute of Health budget to see that heart disease and cancer—our two greatest offenders—receive high priority.

The priority in one sense merely resides in how much money is spent for the control of each disease. While it is difficult to deny inroads into the control of some of our major diseases, the success in control of many others is minimal.

Where does the fault lie? There is evidence that we do have the informational base and delivery system for control of some major diseases of these United States. Effective implementation, however, demands in some cases giving up some latitude in our behavior patterns.

An example of this would be the diseases related to tobacco abuse. If only the pulmonary diseases associated with tobacco were eliminated, an enormous segment of our medical resources would be freed.

There is great disparity between the major diseases of this country and those of the young African nations. In large, most of the major diseases of the developing nations are infectious and control measures operate external to the person. In contrast, many of the major ills of this country are the result of individual life styles. How to change life styles so that we become a healthier nation will not be an easy matter.

GRS

[1] Walsh, J.A., and Warren, K.S.: Selective Primary Health Care: An Interim Strategy for Disease Control in Developing Countries. 301:967-973, November 1, 1979.

ANYTIME YOU WISH!

Did you know that you can purchase or increase your group endorsed disability income coverage any time during the year? Of course, you must complete an application and be accepted by the company.

We use the anniversary dates only as an economy move in order not to have daily billing so you need not send payment with the application since premiums would be pro-rated.

We have heard that members are confused on this and hope this clears it up!

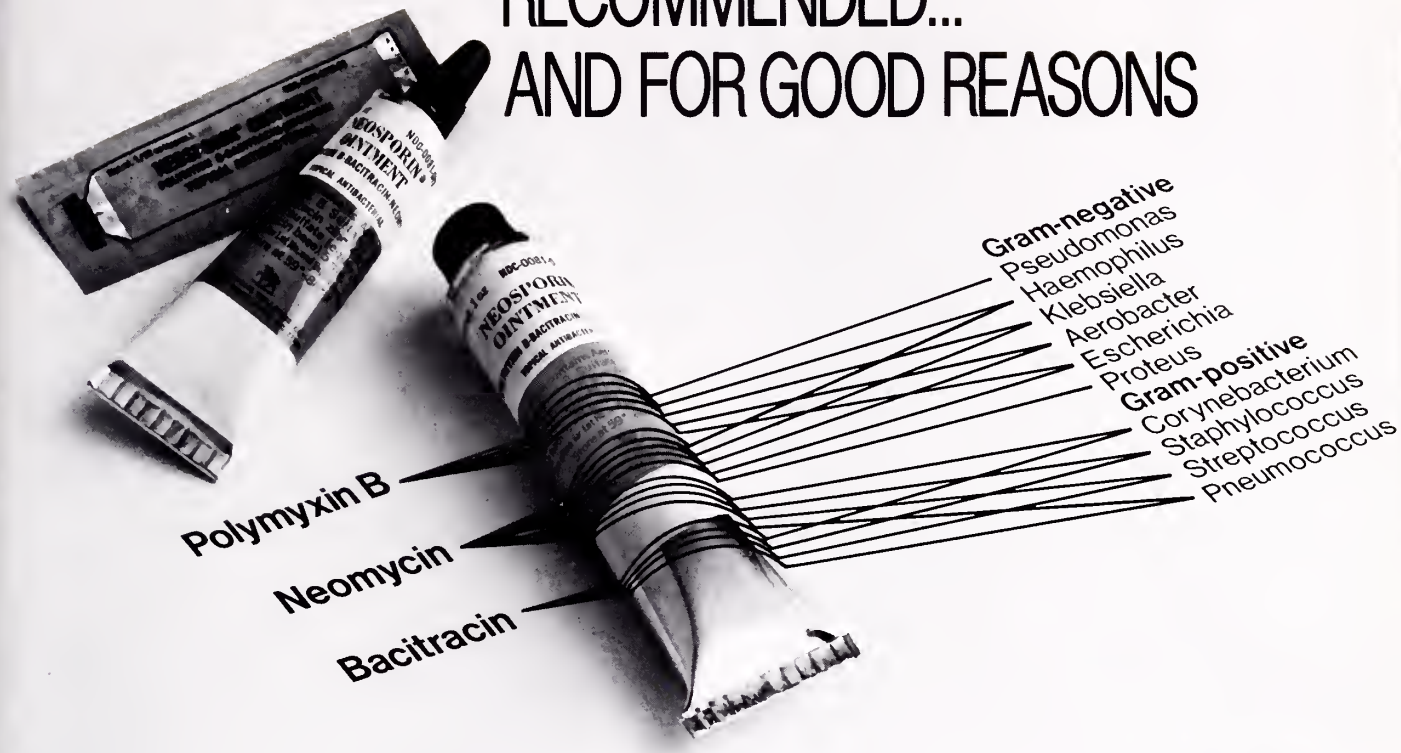
KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

IT'S HIGHLY RECOMMENDED... AND FOR GOOD REASONS



1. provides broad-spectrum, overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep
2. helps prevent topical infections, and treats those that have already started
3. it's good medicine for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses; and it's painless and cosmetically pleasing
4. contains three antibiotics that are rarely used systemically
5. you can recommend it in any of the three convenient package sizes: 1 oz tube, ½ oz tube, or the versatile, single-use foil packet



selected by NASA for the Apollo and Skylab missions

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Perdiem

empties the bowel gently...

by filling it.

Perdiem™ . . . the re-educative laxative
. . . relieves constipation by a unique combination o
physiological bulk stimulus and gentle pharmacologi
encouragement of peristaltic response

R O RORER E R

WILLIAM H. RORER, INC
Fort Washington, PA 19034



Made in West Germany

(Please see next page for prescribing information)

Perdiem™

Prescribing Information

ACTIONS. Perdiem™ with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION. Natural vegetable derivatives: A unique blend of psyllium and senna (Plantago Hydrocallaid with Cassia Pod Concentrate).

INDICATION. For relief of constipation.

PATIENT WARNING. Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS. To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY. Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION. For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN. From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE. It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

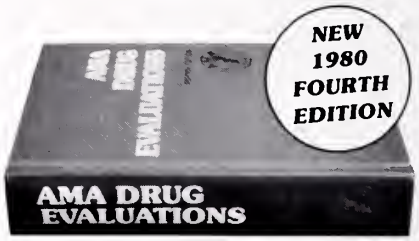
HOW SUPPLIED: Granules: 100 gram (3.5 oz) and 250 gram (8.8 oz) canisters.

RORER

WILLIAM H. RORER, INC.
Fort Washington, PA 19034

NOW AVAILABLE!

The most useful and definitive book on drug therapy!



Completely reorganized, updated, and expanded, *AMA DE/4* is the most inclusive, comprehensive, and objective drug compendium ever assembled, covering virtually every significant drug prescribed in the U.S. today. Over 1,300 drugs are evaluated, including 57 new drug listings.

An indispensable, clinically-oriented guide for prescribing, dispensing, or administering drugs

Organized by therapeutic category, each chapter begins with an introductory overview, followed by detailed evaluations for individual drugs. *AMA DE/4* gives information on dosage, actions and uses, and contraindications-plus a listing for hundreds of additional mixtures and proprietary preparations.

THE authoritative guide

You can be confident the information is accurate and clinically pertinent because it was compiled by the AMA Drug Department working with the American Society for Pharmacology and Therapeutics and a consulting panel of more than 300 distinguished physicians and other health care professionals.

Order AMA DE/4 today!

Order Dept., OP-075, AMA
P.O. Box 821, Monroe, WI 53566

50% discount for Residents! Only $24!

Please send me_____copy(ies) of **AMA Drug Evaluations, 4th Edition,** OP-075. $48 per copy. (Residents, $24). Enclosed is my check, payable to AMA, for $ _____. Payment must accompany order. If Resident, indicate hospital below.

Please print SJ

Name _____

Hospital _____

Address _____

City _____

State/Zip _____

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal.* Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

Drs. Gerald Berman and John Gamel, in their Letter to The Editor (The Journal of the Kentucky Medical Association, February, 1980), accuse audiologists and other professions of seeking "to obtain by decree what they have failed to obtain by degree". The other professions can respond to this statement as they wish. As concerns Audiology, this statement is not consistent in any way with the ethical principles and practices of the profession of Audiology nor of practicing audiologists.

I hope that this will help to clarify their statement.

Irving Silverman, Ph.D.
Audiologist
American Speech and Hearing Association
Certificate of Clinical Competence: Audiology

To the Editor:

I recently wrote a letter describing how medicine and all its branches are under attack from non-medical practitioners who seek to expand their practice through legislation rather than training.

I recently received a letter from The American Speech-Language-Hearing Association. In this letter they state "Audiologists are not physicians, and they are not trained to provide any medical, diagnostic or medical treatment services to consumers. ASHA has never asserted otherwise nor does ASHA ever intend to do so." Because of this statement, I am more than happy to remove audiologists who are members of ASHA from my list of non-medical practitioners who wish to practice medicine through legislation. I would hope in the future that all other non-medical practitioners will have their organizations proclaim a similar message to that of ASHA.

The Kentucky Academy of Eye Physicians and Surgeons, along with the Kentucky Medical Association, at the present time, are endorsing two bills in the legislature. One, Senate Bill 273, would require non-medical practitioners (optometrists) to refer to a physician, any patient who exhibits any specific pathology which could resonably indicate the presence of any medical condition which such a person is not permitted to diagnose or treat. We are also endorsing Senate resolution 45, which asked that the legislative research commission perform a study to determine the advisability of non-medical practitioners (optometrists) using diagnostic drugs.

Gerald Berman, M.D.

To the Editor:

The Mississippi Epidemiologic Studies Program wishes to remind Kentucky physicians about the *Pesticide Incident Monitoring System* (PIMS), a nationwide effort to document pesticide poisonings of humans, as well as incidents involving the exposure of animals and the environment to pesticides. Our project, which is located at the State Chemical Laboratory on the Mississippi State University campus and which operates under contract with the Environmental Protection Agency, is responsible for implementing PIMS in our four states of responsibility—Alabama, Kentucky, Mississippi and Tennessee.

In a previous letter to the editor of the *Journal,* we requested participation by Kentucky physicians in this effort. We would like to briefly repeat some back-

ground information about PIMS and about services which our Laboratory can provide to physicians.

Participation by a physician consists of reporting any incidents of human exposure to pesticides which come to his attention. We will gladly furnish poison information forms, which are concise and require little time for completion. Forms have already been mailed to all general care hospitals in our area of responsibility. We feel this request is not unreasonable since the number of poisoning cases seen by any one physician is relatively small. We also emphasize that a patient's identity is not needed since we are interested only in the pertinent facts surrounding a poisoning incident: time, place, pesticide involved, occupational relationship, route of exposure, major symptoms exhibited, and type medical treatment administered. Information is requested on all pesticide related cases, including acute, subacute and chronic exposure. It is hoped that physicians who treated such cases during 1979 will report these to us, and that all Kentucky physicians will report pesticide incidents which come to their attention in 1980 and beyond.

Our project received reports of 24 incidents involving human exposure to pesticides in Kentucky during 1978. This compares to 120 such incidents for Mississippi, 17 for Alabama, and 130 for Tennessee. Variance in the numbers reported from the four states probably reflects less participation in the reporting system in some states rather than occurrence of significantly fewer poisonings.

As a service, the MS ESP offers the Laboratory's expertise in dealing with pesticide poisonings. We provide free cholinesterase determinations and pesticide residue analyses to aid in the diagnosis and confirmation of poison cases. Due to the time and distances involved, these analyses would most likely be performed as confirmatory aids and not in the actual diagnoses. As an added service, we will be happy to provide each physician with a copy of Dr. Donald Morgan's *Recognition and Management of Pesticide Poisonings.*

For more information on the MS ESP in general and the PIMS in particular, write or call:

Dr. Larry G. Lane
Mississippi Epidemiologic Studies Program
Mississippi State Chemical Laboratory
Post Office Box CR
Mississippi State, Mississippi 39762
Phone (601) 325-4308

To the Editor:

The 1980 State Legislative Session will be history by this time, and I hope we have been as successful in medical legislation as we have in past sessions. We win some and we lose some but overall, we have been highly successful in the past. This doesn't occur just because of happenstance.

There are many long hours of work involved by our staff, lobbyists, and several of our officers and members. Unless you are personally involved with the work they do, it is impossible to appreciate what an outstanding job they do for medicine. We are very fortunate to have such qualified individuals working on our behalf.

I am sure there will be some of you disappointed in some of the legislation passed. It is impossible to win all battles but I guarantee all efforts were made by these individuals to accomplish what was best for medicine. There will probably be close to 100 bills introduced that directly or indirectly affect medicine. It is a very demanding chore to keep abreast of this much legislation.

The legislative process makes it even more demanding. Politics is the art of compromise, so very few bills introduced ever come to the floor as originally written. They are amended, substituted, etc. until sometimes you wouldn't even recognize the original. This happens on a day to day basis and very frequently we find ourselves having to be against a bill that we originally supported.

Constructive cirticism is always encouraged but uninformed criticism is neither helpful nor should it be offered.

We must all work together to accomplish our goals in medical legislation. Together we can be extremely successful but when we allow petty differences or just plain indifference to interfere, then we have diminished our influence. I urge you all to join K E M P A C today (preferably Sustaining) and the A M A, and lets all work together for the good of our profession.

In closing, I want to personally thank our staff, lobbyists, officers, Key Men, KEMPAC and our other members who worked so long and hard for me and for you in Frankfort.

Donald C. Barton, M.D.
15th District Trustee

To the Editor:

Cerebral Palsy is but one of several conditions which afflict school age children. Others are meningomyleocele and muscular dystrophy. Recent changes in the public law, have allowed many of these children, formerly kept at home, to enjoy the benefits of a public

education, as tailored to their own capabilities. Orthopaedic appliances are frequently necessary for these children to ambulate or attend schools. Orthopaedic appliances and wheelchairs should be customized and prescribed for each individual child, this requires knowledge of the pathology and the type and extent of motor disability. It also requires a wide knowledge of the variety of wheelchair and appliance models available, as well as a knowledge of the environment in which the wheelchair or appliance will be used.

It has come to our attention that family physicians are frequently asked to authorize or sign prescriptions for wheelchairs and orthopaedic devices, for insurance purposes, which have been written by salesmen and other trained persons, who have independently approached parents of handicapped children and/or their teachers. In some instances that have been brought to our attention; the wheelchairs have already been delivered to the child.

This occurs because salesmen are allowed to enter the school and are given permission to approach the parents for the purpose of selling orthopaedic appliances or wheelchairs. The parents then approach the physician for a prescription for this appliance or wheelchair in order for the parents insurance to pay for the appliance. The physician is placed in a position of either giving approval for frequently an inappropriate wheelchair prescription, or facing the wrath of the parents who feel that he is denying their child. This commercial exploitation of disadvantaged and handicapped children, is frequently not in their best interests.

Therefore, we would recommend that the prescribing and fitting of orthopaedic appliances and wheelchairs be through a combined effort between the physiotherapist and the physician who is caring for the handicapped child. We also recommend that the commercial salesmen be prevented from exploiting the handicapped, as much as possible.

W. E. Badenhausen, Jr., M.D.
Medical Director
United Cerebral Palsy
Treatment Center

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

V-Cillin K®

penicillin V potassium

is the most widely prescribed brand of oral penicillin



Tablets
125, 250, and 500 mg*
Oral Solution
125 and 250 mg*/5 ml

V-Cillin K*
penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin. [102175]

***Equivalent to penicillin V.**

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana 46206

900416

allergy unmasked

A NEW UNDERSTANDING

MULTIMEDIA CONTINUING EDUCATION PROGRAM



At last... A program that tells how new views on allergy can be used in daily practice

Nine international authorities discuss new views of allergy and developments that make diagnosis more precise, treatment more practical for all concerned physicians. Available *free of charge,* as a service to the medical profession from PHARMACIA Diagnostics, the complete program includes:

FILM (OR VIDEO CASSETTE) –
25-minute presentation relates new views on allergy through actual case histories.

COMPREHENSIVE PACKAGE –
Also supplied are moderator's guide, self-assessment tests, announcement posters, accreditation information. Present ALLERGY UNMASKED to colleagues, students, other health professionals at the time and place of your choice. For more detailed information, simply return the convenient coupon.

MONOGRAPH –
72-page illustrated text provides in-depth discussion of theory and application for home study.

PHARMACIA Diagnostics
Division of Pharmacia Inc
800 Centennial Avenue,
Piscataway, NJ 08854

SJ



☐ Please provide more information on the ALLERGY UNMASKED Continuing Education Program.

☐ Please have a representative contact me.

Name (please print)

Title

Organization

Address

City

State Zip

Pharmacia Diagnostics
Division of Pharmacia Inc.
800 Centennial Avenue
Piscataway, NJ 08854

Copyright © Pharmacia Inc. 1979

Pharmacia Diagnostics

9-0541M

Application for Scientific Exhibits

1980 Annual Meeting — **Kentucky Medical Association**

Ramada Inn/Bluegrass Convention Center — **Louisville, Kentucky** — **September 23, 24, 25**

The Kentucky Medical Assaciation welcames and supparts scientific exhibits as a facet af cantinuing pastgraduate education.

Applicatians far space shauld be received befare July 1, 1980.

ACCREDITATION

KAFP allaws one credit hour for each hour of participation and presentation af scientific exhibits up to 15 haurs. AMA allows up ta 10 haurs for AMA Categary 4 credit.

1. Title af exhibit _____
2. Name(s) of exhibitar(s) _____
   Address _____
   Prafessional title _____
3. Institutian if ather than exhibitor _____
4. Amaunt of backwall faatage required _____
   (The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
   SHELF DESIRED? _____ (Shelf is 2' deep × width af backwall faotage)
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance pravided ta yau in connectian with this exhibit _____
7. Has this exhibit been displayed before? If sa, when & where? _____
8. It is required that yau attach a rough sketch ar phatograph and a brief outline af yaur exhibit ta include: (a) cantent af the presentation, and (b) the methad, eg., equipment to be used.

Date _____ _____

Signature of Applicant

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Cammittee
Kentucky Medical Assaciatian
3532 Ephraim McDawell Drive
Lauisville, Kentucky 40205

- **KMA provides, without cost to the exhibitor, simple shelves, bracket lights and a title sign.**
- **Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 704 West Main Street, Louisville, Kentucky 40202**
- **Transportation and erection costs are the responsibility of the exhibitor.**
- **Exhibit must be attended during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.**
- **Equipment which will create noise should not be used during the general sessions and, at other times, should be controlled by head or earphones or a muffling device.**

Contemporary Topics in Immunobiology

Edited by M.G. Hanna, Jr., John J. Marchalonis and Nicholas Cohen, Plenum Press, Copyright 1972, 293 pages

This multi-volume series explores the burgeoning field of immunobiology from both an analytic and eclectic point of view. From the desperate state of affairs in the 1940's to the plentiful descriptions of immunologic phenomenon recently, this field has become both a panacea for those looking for answers in biological sciences and an albatross to those contending with the transient "latest" theories.

The ninth volume in this series bears the somewhat personal title of Self/Non-Self Discrimination. From such a probing entrance, one enters a book fraught with complicated, data rich, scientific papers compilated by the editors and intended to review the state of the art from the basic biologists point-of-view. Animal models are used for illustration and the medically oriented reader will need to search for relevance to his data base.

We review this book in our Journal with the intention of making its presence known. To those who find it germane to their interests it is readable, though admittedly a challenge, without recent basic science foundation in immunobiology. For the research that it spawns and the clarification it manifests, it belongs in the medical library.

STEPHEN Z. SMITH

Current Medical Diagnosis & Treatment

Marcus A. Krupp, Milton J. Chatton and Associate Authors, Lange Medical Publications, Copyright 1980, 1116 pages

The nineteenth and latest edition of this handbook type text continues the tradition of previous editions. Never meant to be encyclopedic, this book assumes the role of both a review of the state of the art and a refresher for diagnosis and treatment of medical disorders.

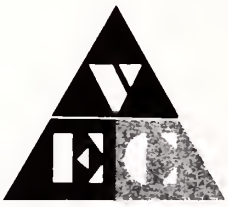
In view of the fact that this book is written in concise explanatory terms, very little provocative material is either presented or intended. It cannot be read leisurely and in fact is monotonous to read in sequence. More illustrations should be used not only to clarify acid base chemistry, problems in diabetes, hormonal interactions in endocrine disorders and the dynamics in cardiovascular diseases, but also to embellish the book with something other than page after page of the written word.

Surprisingly common disease problems such as hypertension, functional GI disease, headache and anxiety reactions bear relatively little space

compared with less common diseases. The tendency to dwell on the more clearly delineated medical problems and avoid controversy is common with each author and probably intended.

For those out of the mainstream of medicine and those trying to relaunch their medical studies, this book is an excellent place to embark. Very few physicians voluntarily divorce themselves from medical re-education and with this book keeping up is certainly facilitated. At $19, the more than 1000 pages are a literary and educational bargain.

STEPHEN Z. SMITH M.D.



VAN ZANDT, EMRICH & CARY

INCORPORATED

WE SPECIALIZE

IN

INSURANCE AND FINANCIAL PLANNING FOR PHYSICIANS

JO. M. VAN ZANDT
CLAUD I. EMRICH, JR.
ARTHUR CARY, CPCU
ROBERT C. EMRICH
LUKE WHITTAKER
J. STEPHEN WATERFILL
PAUL G. FRANZ, CPCU

Insurance Professionals with the Personal Touch





Starks Bldg., Louisville, Ky. 40202, (502) 585-2351

CATEGORIES: 2-6

RETURN TO:
Kentucky Medical Associatio
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

CATEGORY 2: CME Activities with Non-accredited Sponsorship
CATEGORY 3: Medical Teaching
CATEGORY 4: Articles, Publications, Books and Exhibits
CATEGORY 5: Non-Supervised Individual CME
CATEGORY 6: Other Meritorious Learning Experience
NOTE: For more information on these categories refer to the AMA PRA Information Handbook

(MUST BE PRINTED OR TYPED)

Cat. #	Sponsor: Institution, or Publication, or Physician, or Self	Location of Activity City, State	Description of Learning Activity (course, paper, journal name, etc.)	Dates of Activity From To	Credit Hours

Log of Continuing Medical Education Activities for the Period _____ to _____

Name: _____

Address: _____

_____

_____

Ky. Cert. # _____

Medical Education # _____

CATEGORY 1: CME Activities with Accredited Sponsorship
(At least *60* credits *must* be earned in this category for AMA PRA Award over a three year period).

I CERTIFY THE FOLLOWING TO BE TRUE AND CORRECT FOR THE PERIOD _____ to _____

(MUST BE PRINTED OR TYPED)

Signature: _____

Accredited Sponsor	Location of Activity City, State	Description of Activity	Date of Attendance From To	Credits
			TOTAL HOURS	

Digest of Board of Trustees Meeting February 28, 1980

The Board of Trustees met in special session on February 28, 1980, for the primary purpose of considering a Public Relations program for the Association outlined by the President, Robert S. Howell, M.D., Louisville.

Doctor Howell presented a slide presentation he had produced entitled, "KMA Public Relations Ten-Point Program" which highlighted avenues the Association might take to enhance its relations with its members and the public. Following Doctor Howell's presentation, the Board appointed an ad hoc committee to work with Doctor Howell on this project, and to make priority recommendations to the Board.

The Chairman of the Committee on State Legislative Activities, Carl Cooper, Jr., M.D., Bedford, updated the Board members on the status of legislation affecting the medical profession currently under consideration by the 1980 Kentucky General Assembly. Doctor Cooper stated that a detailed discussion of all legislation would be conducted at the meeting of the Committee on State Legislative Activities following the Board meeting, and invited the Board members to attend.

The Board approved a request of the Committee on School Health, Physical Education, and Medical Aspects of Sports to assist the University of Kentucky administratively and financially with the 1980 Medical Aspects of Sports Symposium, and granted approval for the Committee on Continuing Education to change its fee structure for accreditation and co-sponsorship. The Board also agreed that the HSA Committee should conduct a series of educational seminars.

In other action the Board accepted for information Nurse Practitioner Liaison report from the Jefferson County Medical Society; approved a request of the Auxiliary to conduct a CPR class during the 1980 KMA Annual Meeting; referred a request for endorsement of a Cancer Detection Program for Kentucky to the Cancer Committee Chairman; and voted to request additional information from the Visiting Nurses Association regarding a grant request.

The next regular meeting of the Board of Trustees was set for April 2 and 3, 1980, in the KMA Headquarters Building.

Report of CME Activities

The Kentucky Medical Association CME committee, under direction of the House of Delegates, is again undertaking the annual collection and computation of the membership's CME activities.

The program resulted from a 1976 House of Delegates action. It is voluntary, but participation is strongly encouraged by the House and Board of Trustees.

The reporting form is located in this issue of the Journal. It will be published periodically throughout the year. Please fill it out and return to the KMA Headquarters office by August 15 in order to be counted in this associational year.

Records are kept for three years and are available to you upon request. If you have recently received the AMA Physician's Recognition Award you need not fill out the form. Attach a copy of your certificate to the reporting form and return.

If you have any questions please contact the KMA office.

Members in the News

Lawrence J. Guzzardi, M.D., Lexington, has been named as a consultant advisor to review qualifications of jails that are being considered for accreditation of their health care facilities.

Doctor Guzzardi is associate professor of emergency medicine at the Albert B. Chandler Medical Center, Lexington. He has written several papers on jail health care and has trained correctional officers in health care.

Three physicians, a sheriff and an ex-offender are included in this advisory group that will weigh the assessment of the jails by American Medical Association staff members against a comprehensive set of standards of jail health care. The AMA standards were written under the supervision of an earlier committee composed of physicians, law enforcement and correctional officers, lawyers, clergymen, nurses and ex-inmates. Development of the standards was funded by Law Enforcement Assistance Administration grants.

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Edwin Lewis Bunch, Lexington
Frank M. Gaines, Louisville
Ray H. Hayes, Louisville
Napoleon M. Imperial, Whitesburg
Hollis Johnson, Louisville
Nina Kateryniuk, Louisville
Ronald L. Kelley, Paducah
Wiley Elwood Kozee, Ashland
Kenneth Elwood Lanter, Erlanger
Arnold Myron Ludwig, Lexington
David P. Moore, Louisville
Harold Eugene Resinger, Lexington
Harvy L. Snider, Louisville
Richard Conrad Spear, Louisville
Chester B. Theiss, Louisville
Louis Vieillard, Harlan
Paul Marion Walstad, Harlan
Jesse H. Wright, Louisville

Headquarters Activity

APRIL

2-3	Board of Trustees, Louisville
8	*Journal* Editors, Louisville
10	Membership and Placement Services Committee, Louisville
22-23	New Physicians Workshops, Louisville
24	Office Managers Workshop, Louisville
24	Medical Assistants Workshop, Louisville
24	Claims and Utilization Review Committee, Louisville

MAY

5-6	Medical Aspects of Sports, Lexington
13	*Journal* Editors, Louisville

JUNE

10	*Journal* Editors, Louisville
12	CME Committee, Louisville
18-19	Emergency Medical Care Seminar, Louisville

CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

EMERGENCY PHYSICIAN needed to share evening rotations in this emergency department located in a lovely community of 10,000 near Paducah; 10-15 patients seen per 12 hour shift, excellent compensation. For details contact Rena Ballard, 970 Executive Parkway, St. Louis, Missouri 63141 or call toll-free 1-800-325-3982.

OFFICE SPACE in Professional Arts Building. New ultra modern facility located between Clarkson and Leitchfield, Ky. Contact V. F. Duvall, M.D. (502) 242-2311.

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition. (502) 895-5429.

★

Specialized Service

IN

PROFESSIONAL LIABILITY INSURANCE

is a high mark of distinction

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greena, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Charles E. Faree, Representative
Suite 103B, 152 East Reynolds Road
Telephane: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexingtan, Kentucky 40524

We're not asking you for money.

Just a few words. To people who need us but don't know we exist.

We're Recording for the Blind. We're already helping more than 13,000 handicapped students. But there are a lot more out there who need our help.

You know who they are. In your work you come across students who are blind, dyslexic or physically unable to handle books. These are the students we help. Since they cannot read their textbooks, we do it for them. On tape. And we send the tapes to the students free of charge.

All we want you to do is tell eligible students about us. Have them contact: Student Services, RFB, Inc., 215 East 58th Street, N.Y., N.Y. 10022, (212) 751-0860. We'll take it from there.

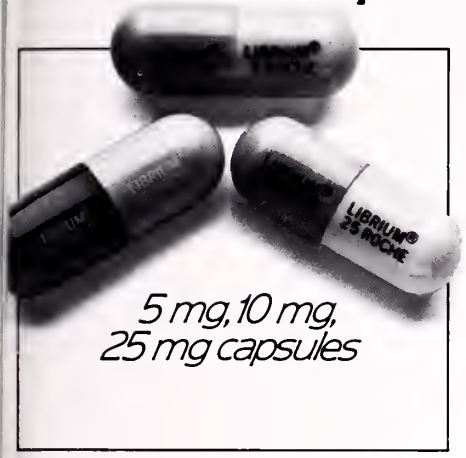
It's such a little thing to ask.

Recording for the Blind is a non-profit organization. All contributions are tax-deductible

Recording for the Blind, Inc.

an educational lifeline.

Librium®
chlordiazepoxide HCl/Roche



5 mg, 10 mg, 25 mg capsules

- ☐ Proven antianxiety performance
- ☐ An unsurpassed safety record
- ☐ Predictable patient response
- ☐ Minimal effect on mental acuity at recommended doses
- ☐ Minimal interference with many primary medications, such as antacids, anticholinergics, diuretics, cardiac glycosides and antihypertensive agents

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

synonymous with relief of anxiety

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701

Please see following page.

Librium®
chlordiazepoxide HCl/Roche
5 mg, 10 mg, 25 mg capsules

19 South 22nd St.
Philadelphia, PA 19103



ROCHE

synonymous with relief of anxiety

Please see preceding page for a summary of product information

Percutaneous Needle Biopsy of Pulmonary Masses

Primary Lymphoma of the Thyroid and Hashimoto's Thyroiditis

Clinical Approach to the Choice of Antimicrobial Therapy, Case #17: Septic Arthritis

May 1980
Volume 78
Number 5

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
MDS
MAY 29 1980

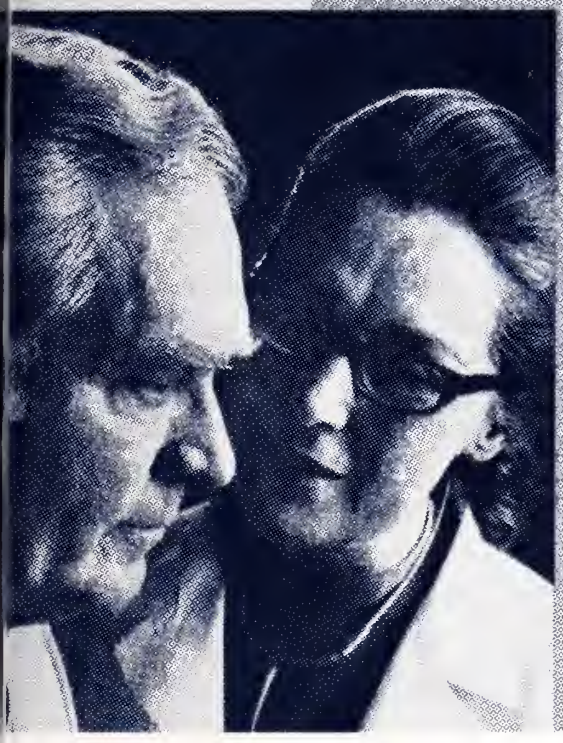
The Journal Of The Kentucky Medical Association



proven antianxiety

Highly specific calming action virtually free of unwanted side effects: this was the remarkable clinical promise of Librium (chlordiazepoxide HCl). And today this promise continues to be fulfilled in a wide variety of patients you see every day.

ROCHE



The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium® Ⓒ IV
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules

synonymous with relief of anxiety

- An unsurpassed safety record
- Minimal effect on mental acuity, in proper dosage
- Predictable patient response
- Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

LIBRARY OF THE
OF PHYSICIANS
PHILADELPHIA
MAY 29 1970

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage. withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults.* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

ROCHE Roche Products Inc
Manati, Puerto Rico 00701

Postgraduate Opportunities

MAY

4-8	Instructional Course in Hand Surgery, Marriott Inn, Clarksville, Ind.
5-6	Medical Aspects of Sports, Symposium: Physical Therapy Rehabilitation of Athletic Injuries, Hyatt Regency, Lexington*
9	Conference on Emergency Medicine, Good Samaritan Hospital, Lexington
11-16	11th Family Medicine Review, Session II, Hyatt Regency, Lexington
15	Common Problems in Pediatric Allergy, Health Sciences Center, Louisville**
16-17	Kentucky Surgical Society, Spring Meeting, Barren River State Resort Park, Lucas, Ky.
30-31	Fiberoptic Brohchoscopy: A Workshop, Hyatt Regency, Lexington

JUNE

5	The Consequences of Stress, Health Sciences Center, Louisville**
8-13	11th Family Medicine Review, Session III, Hyatt Regency, Lexington*
22-28	5th Family Medicine Review, Galt House, Louisville**

JULY

19-20	KAFP Summer Seminar, Owensboro

AUGUST

9-16	JCMS—CME Meeting, Snowmass, Colorado
29-2	ACP-MKSAP V, Hyatt Regency, Louisville

SEPTEMBER

4-6	Gynecologic Surgery, Hyatt Regency, Louisville
21-25	KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

1	American Association for Cancer Education, Hyatt Regency, Louisville
27-29	Mid American College Health Association, Hyatt Regency, Louisville

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161*

***For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*

Volume 78 • May 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

Percutaneous Needle Biopsy of Pulmonary Masses
John H. Woodring, M.D. and Danny R. Hatfield, M.D. 259

Primary Lymphoma of the Thyroid and Hashimoto's Thyroiditis
Sheri L. Rolf 263

Clinical Approach to the Choice of Antimicrobial Therapy, Case #17: Septic Arthritis
Chin Hak Chun, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D. 267

Hypercalcemia in Malignancy (Grand Rounds)
Barbara Bell, M.D. 275

EDITORIAL

RX: Permanent and Total Disability 285

ASSOCIATIONAL NEWS

Two Guest Speakers Will Highlight Emergency Medical Care Seminar 297
Nominations Being Accepted For Three Annual KMA Awards 298
Annual Meeting Notice 299
Report on the 1980 Session of The Kentucky General Assembly 300
Digest of Board of Trustees Meeting 306

REGULAR FEATURES

Postgraduate Page 250
President's Page 255
Manuscript Information 262
Book Reviews 287, 288, 289
How's Your Cost Consciousness? 307
Members in the News 307
Headquarters Activity 309
Application for Scientific Exhibits 290

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10
(Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **MANAGING EDITOR**
Joseph A. Witherington, Jr.

• **ASSISTANT MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• **BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES**

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Cook, III, M.D.
Stanley Lowenbraun, M.D.
Eugene H. Conner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 1980

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3905 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

MAY BUYERS GUIDE FOR JOURNAL OF KMA

American Medical Association 294
Burroughs Wellcome Co. 284
Classified Column 309
Fenwick Hall 279
General Leasing 308
Insurance Corporation of America 291
Kentucky Medical Insurance Corporation 295
A.P. Lee Agency 292
Eli Lilly & Company 286
Medical Office Space 308
Medical Protective Company 308
Roche Laboratories 248, 249, 250, 280, 281, 293, 311, 312
William H. Rorer Inc. 272, 273, 274
Schering Corporation 256, 257
Smith, Kline & French 271
South Central Bell 258
Van Zandt, Emrich & Cary, Inc. 298
Wyeth Laboratories 253, 254, 282, 283



non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® ©

meprobamate and ethoheptazine citrate with aspirin) Wyeth

UAGESIC—Abbreviated Summery

NDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified he indications as follows

Possibly" effective, for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-affective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for tha individual patiant

NTRAINDICATIONS: Equagesic should not be gvan to viduals with a history of sansitivity or sevare intoleranca spinn, meprobamate, or ethoheptazine citrate

RNINGS: Careful supervision of dosa and amounts preed for patiants is advised, especially with those patients known propensity for taking excessive quantities of drugs essive and prolonged use in susceptible persons, e g , holics, formar addicts, and other severe psychonaurothas been reported to result in dependence on or habriion to the drug Whare excessive dosaga has continued weeks or months, dosage should be reduced gradually er than abruptly stopped, since withdrawal of a "crutch" precipitate withdrawal reaction of greater proportions that for which the drug was originally prescribed Abrupt ontinuance of doses in excess of the recommended dose resulted in some cases in the occurrence of epileptiform ures

cial care should be taken to warn patients taking meprohete that tolerance to alcohol may be lowered with reant slowing of reaction time and impairment of judgement coordination

AGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with use of minor tranquilizers (meprobamete, chlordiazepoxide, and diezepem) during the first trimester of pregnancy hes been suggested in several studies Because use of these drugs is rarely e metter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potentiel may be pregnenf et the time of institution of therepy should be considered. Patients should be advised that if they become pregnant during therepy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobemete passes the placental barrier. If is present both in umbilical-cord blood at or near meternel plesma levels end in breast milk of lacteting mothers et concentrations two to four times thet of maternal plasma When use of meprobemate is contemplated in breast-feeding petients, the drug's higher concentretions in breast milk as compared to maternal plasma levels should be considered.

Preparations confaining aspirin should be kept out of the reech of children Equagesic is not recommanded for patiants 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, tha dose should ba reduced If symptoms continue, patients should not operate a motor vehicla or any dangerous machinery

Suicidal attempts with meprobamata have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very faw sucidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses hava been taken, sleap ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatmant given. Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may ba cautiously administered If severe hypotansion davelops, prassor amines should be used parenterally to restora blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs raraly when meprobamate and ethoheptazine citrate with aspirin is administered in recommanded dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by dacreasing the dosa, but occasionally it may be desirable to administer central stimulants such as amphatamine or mephentarmine sulfate concomitantly to control drowsiness

A clearly related side effact to the administration of maprobamata is the rare occurrence of allergic or idiosyncratic reactions This response develops as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allargy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous maculopapular rash which may be genaralized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses, peripheral adema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, faintng spells, angioneurotic edema bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not ba attempted

Rare cases have bean raported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused thesa conditions have been associated with meprobamate A faw cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and light-haadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Othar anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavaga, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which if it occurs usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® (IV) ©

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions; a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphen, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other suppor tive measures should be used as indicated. Gastri lavage may be helpful. Activated charcoal can ab sorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxy phene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induc tion of emesis may be indicated. Activated charcoa is probably ineffective unless administered almos immediately after acetaminophen ingestion. Neithe forced diuresis nor hemodialysis appears to be ef fective in removing acetaminophen. Since acetami nophen in overdose may have an antidiuretic effec and may produce renal damage, administration o fluids should be carefully monitored to avoid over load. It has been reported that mercaptamine (cys teamine) or other thol compounds may protect agains liver damage if given soon after overdosage (8-1 hours). N-acetylcysteine is under investigation as less toxic alternative to mercaptamine, which ma cause anorexia, nausea, vomiting, and drowsiness Appropriate literature should be consulted for furthe information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity ma be delayed up to one week. Acetaminophen plasm levels and half-life may be useful in assessing thi likelihood of hepatotoxicity. Serial hepatic enzym determinations are also recommended.

Copyright © 1980, Wyeth Laboratories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa 19101



PRESIDENT'S PAGE

May I join your President, Robert Howell, M.D., and encourage every physician throughout the state of Kentucky to pay your dues and join KMA as well as your local medical society, KEMPAC and the AMA.

During these times when everybody seems to be "taking a crack" at the profession of medicine as well as the physician on the local scene, we desperately need to be organized and to work together to maintain our free enterprise system. Your dues play a vital part in the continuation of this effort.

KMA staff and leadership are constantly striving to keep their finger on the pulse and prevent occurrences and situations from happening which would be detrimental to medicine. They also work tirelessly for the betterment of you and your profession in the public eye.

At the present time there are 2,943 of the 4,399 physicians practicing throughout Kentucky who are members of the KMA and their local societies. There are only 1,963 Kentucky physicians who presently belong to the AMA. Will those of you who are members please encourage the nonmembers to join our ranks? We need everyone's support and we pledge ourselves to do the very best we can to gain and maintain your confidence in KMA.

Dwight L. Blackburn, M.D.
Chairman, KMA Board of Trustees

This is the third in a series of articles written at the request of KMA President, Robert S. Howell, M.D.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

- provides effective symptomatic relief
- *b.i.d.* dosage simplifies therapy
- scored tablet for dosage flexibility

OPTIMINE®
azatadine maleate, 1 mg. tablets

CONTRAINDICATIONS Use in Newborn or Premature Infants: This drug should not be used in newborn or premature infants.

Use in Nursing Mothers: Because of the higher risk of antihistamines for infants generally and for newborns and prematures in particular, antihistamine therapy is contraindicated in nursing mothers.

Use in Lower Respiratory Disease: Antihistamines should NOT be used to treat lower respiratory tract symptoms including asthma

Antihistamines are also contraindicated in the following conditions: hypersensitivity to azatadine maleate and other antihistamines of similar chemical structure; monoamine oxidase inhibitor therapy (See DRUG INTERACTIONS Section).

WARNINGS Antihistamines should be used with considerable caution in patients with: narrow angle glaucoma, stenosing peptic ulcer; pyloroduodenal obstruction, symptomatic prostatic hypertrophy, bladder neck obstruction.

Use in Children: In infants and children especially, antihistamines in overdosage may cause hallucinations, convulsions, or death.

As in adults, antihistamines may diminish mental alertness in children. In the young child, particularly, they may produce excitation.

OPTIMINE TABLETS ARE NOT INTENDED FOR USE IN CHILDREN UNDER 12 YEARS OF AGE.

Use in Pregnancy: Experience with this drug in pregnant women is inadequate to determine whether there exists a potential for harm to the developing fetus.

Use with CNS Depressants: Azatadine maleate has additive effects with alcohol and other CNS depressants (hypnotics, sedatives, tranquilizers, etc.).

Use in Activities Requiring Mental Alertness: Patients should be warned about engaging in activities requiring mental alertness, such as driving a car or operating appliances, machinery, etc

Use in the Elderly (approximately 60 years or older): Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients.

PRECAUTIONS Azatadine maleate has an atropine-like action and, therefore, should be used with caution in patients with: a history of bronchial asthma; increased intraocular pressure; hyperthyroidism; cardiovascular disease; hypertension.

DRUG INTERACTIONS MAO inhibitors prolong and intensify the anticholinergic (drying) effects of antihistamines.

ADVERSE REACTIONS The most frequent adverse reactions are underlined.

General: Urticaria, drug rash, anaphylactic shock, photosensitivity, excessive perspiration, chills, dryness of mouth, nose, and throat.

Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.

Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis.

Nervous System: Sedation, sleepiness, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis, hysteria, neuritis, convulsions.

Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.

Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses

Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness

OVERDOSAGE Antihistamine overdosage reactions may vary from central nervous system depression to stimulation. Stimulation is particularly likely in children. Atropine-like signs and symptoms (dry mouth; fixed, dilated pupils; flushing; and gastrointestinal symptoms) may also occur.

If vomiting has not occurred spontaneously, the patient should be induced to vomit. This is best done by having him drink a glass of water or milk after which he should be made to gag. Precautions against aspiration must be taken, especially in infants and children.

If vomiting is unsuccessful, gastric lavage is indicated within three hours after ingestion and even later if large amounts of milk or cream were given beforehand. Isotonic and ½ isotonic saline is the lavage solution of choice.

Saline cathartics, such as milk of magnesia, draw water into the bowel by osmosis and therefore are valuable for their action in rapid dilution of bowel content.

Stimulants should not be used.

Vasopressors may be used to treat hypotension.

FEBRUARY 1977 11055010

For more complete details, consult package insert or Schering literature available from your Schering Representative or Professional Services Department, Schering Corporation, Kenilworth, New Jersey 07033.

Schering Corporation
Kenilworth, New Jersey 07033

SWW-417 I

THINK DRY

Schering



THINK
OPTIMINE®
azatadine maleate, 1 mg. tablets

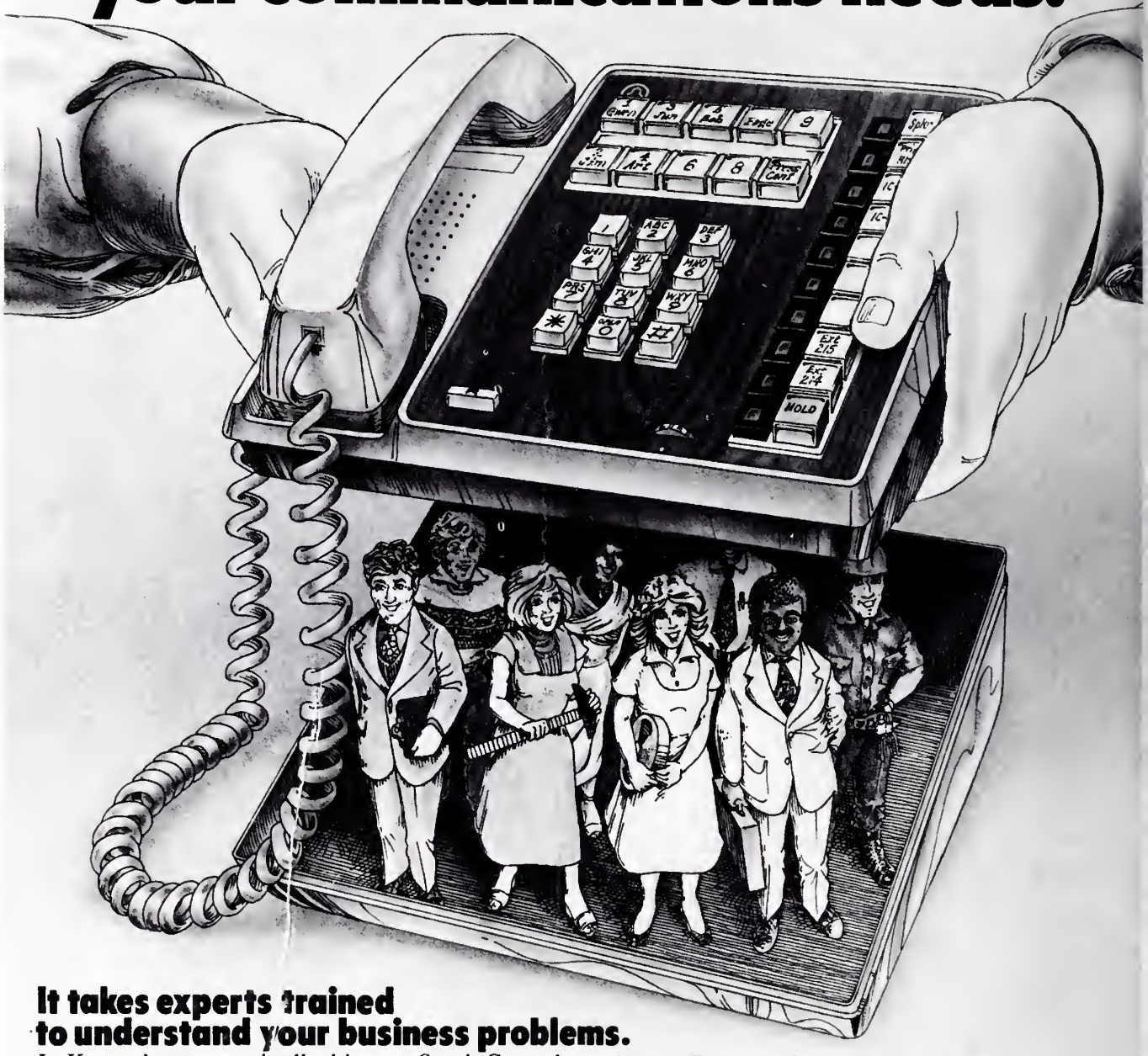
FIRST
for relief of allergy symptoms

℞ only

Please see adjacent brief summary of prescribing information.

Copyright © 1980, Schering Corporation. All rights reserved.

Equipment alone can't solve your communications needs.



It takes experts trained to understand your business problems.

In Kentucky, you get it all with your South Central Bell team of industry specialists. Led by an Account Executive trained to recognize problems unique to your business. Problems that can be identified, then solved with the right communications system.

Whatever your business. Whatever its size.

With a broad range of innovative systems and service options to draw from, your Bell team can design and install a total communications system that meets your specific needs. For now. And for the future. From small but flexible key systems to option-loaded PBXs to advanced data transmission facilities.

And South Central Bell takes total responsibility. For service, equipment and maintenance. Backed by over a hundred years of Bell System technology and outstanding service.

For your business, it's all right here in Kentucky. As close as your phone.

South Central Bell

The Journal Of The Kentucky Medical Association

May 1980 Volume 78 Number 5

Percutaneous Needle Biopsy of Pulmonary Masses

JOHN H. WOODRING, M.D. AND DANNY R. HATFIELD, M.D.

Percutaneous needle biopsy is a well established and safe procedure in the diagnosis of pulmonary parenchymal masses. The diagnostic accuracy is high, yielding a correct diagnosis more often than either bronchial brush or transbronchial biopsy. Morbidity is moderate and associated mortality is low. The procedure can be easily performed in the radiology department with minimal discomfort to the patient.

THE chest radiograph is a sensitive means of detecting pulmonary pathology but often lacks the specificity to make an etiologic diagnosis. Conventional tomography occasionally will add additional information but unfortunately is often nonspecific also. In the evaluation of pulmonary parenchymal masses percutaneous needle aspiration biopsy and percutaneous needle core biopsy can provide histologic-cytologic and microbiological information allowing a specific diagnosis while shortening the patient's hospital stay and preventing the need for thoracotomy in many cases. The procedure can be easily performed by the radiologist in the radiology department.

From the Department of Diagnostic Radiology, University of Kentucky Medical Center, Lexington, Kentucky 40536

Technique

The location of the lung lesion is an important factor in determining the biopsy approach, whether anterior or posterior. It is important to place the patient in a position allowing puncture of the fewest number of pleural surfaces. A lesion in the posterior portion of the lung should be approached posteriorly with the patient in the prone position. A lesion in the anterior portion of the lung should be approached anteriorly with the patient in the supine position. Preliminary chest radiographs are used in determining the desired approach.

The type of needle used for biopsy depends upon both the location and the size of the lung lesion. For lesions larger than 1 cm. a 16.5 gauge core biopsy needle is used, allowing histologic as

well as cytologic samples to be obtained. A 23 gauge Chiba needle is used for aspiration of cytologic samples from lesions less than 1 cm. in size or for lesions located very near the heart on pulmonary hilum. The Chiba needle does not obtain specimens suitable for histology.

The patient is placed in the prone or supine position on the radiographic table and the thorax is scrubbed and draped to allow aseptic technique. The lesion is then located fluoroscopically and the skin overlying the lesion is marked. Local anesthesia, consisting of approximately 10 cc of 1% Lidocaine, is given at the site of percutaneous entry. A small puncture is made with a scalpel and the biopsy needle is inserted perpendicularly into the lung mass. Although not a necessity, a C-arm fluoroscopic unit may be of some value, especially for small lesions. While gently rotating the positioned needle, aspiration is applied with a 10 cc syringe. A vacuum effect should be encountered within the syringe if the tip of the needle is well positioned in the mass. Lack of a vacuum suggests that the needle tip is in the normal lung parenchyma and that the needle should be repositioned.

While applying suction the outer sheath of the core biopsy needle is advanced and the entire needle is withdrawn as a unit. This will provide adequate specimens for both histologic and cytologic examination. If only an aspiration biopsy is performed the needle is withdrawn after suction is applied to the syringe. The biopsy procedure is repeated two to three times to increase the diagnostic yield. The specimens are sent to pathology for appropriate studies including histology, cytology, cell block, and culture for bacteria, acid-fast organisms, and fungus.

After the specimens are obtained the needle is removed, and inspiration and expiration chest radiographs are obtained to determine if a pneumothorax is present. A delayed chest radiograph is then obtained six hours later to check for a late-occurring pneumothorax. Patients are usually ready for discharge from the hospital the next day.

Results

The diagnostic accuracy of percutaneous needle biopsy depends upon the type of biopsy performed and type of lesion biopsied. Needle

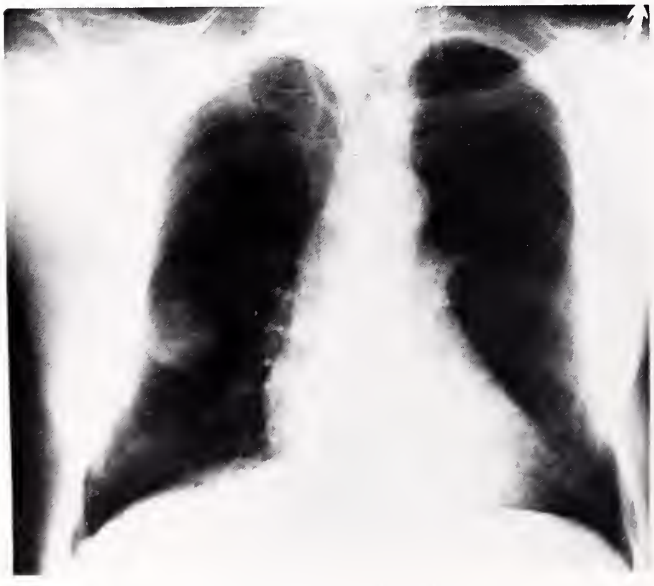


Fig. 1: 73-year-old male with recurrent carcinoma of larynx and Duke C adenocarcinoma of colon. Large right lower lobe mass discovered incidentally on routine film proved to be squamous cell carcinoma. Thoracotomy was not needed and radiation therapy was begun.

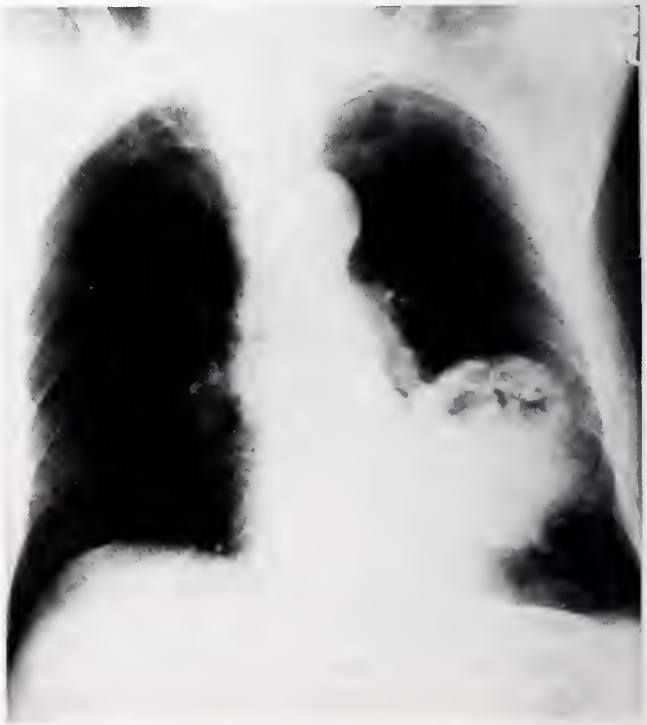


Fig. 2: 80-year-old male found to have large cavitated mass of the lingula. Because of coronary artery disease thoracotomy could not be performed. Biopsy revealed undifferentiated small cell carcinoma. The patient refused chemotherapy.

aspiration biopsy alone has a diagnostic accuracy rate of 72-80% in the diagnosis of neoplastic lesions.[1,2,3] Needle core biopsy has a higher accuracy rate of 84-88%.[1,4] This compares to an accuracy rate of 61-76% for bronchial brush biopsy and 56% for transbronchial biopsy in the diagnosis of neoplastic lesions.[1,2,5]

In the diagnosis of inflammatory or granulomatous lesions the accuracy of percutaneous needle biopsy is somewhat lower for aspiration biopsy (70%) but is not decreased for core biopsy (86%), while bronchial brush biopsy and transbronchial biopsy only show an accuracy of 47-66% in non-neoplastic conditions.[1]

The complication rate of percutaneous needle biopsy is low. While pneumothoraces have been reported to occur in 6-39% of cases[1,2,3,4,6] only 5-8%[1,2] require a chest tube. More recent reports suggest the lower figures are more accurate.[1,6] A small amount of hemorrhage may occur around the biopsy site but significant bleeding is rare.[2,7,8] It is, however, of the utmost importance that the patient be cooperative in order to minimize the complication rate. If the patient cannot cooperate a brief period of general anesthesia may be required.[7] One conceivable complication of percutaneous needle biopsy is the spread of malignant cells along the needle tract. In a series of 2,726 patients in whom 5,300 biopsies were performed only one case of implantation metastasis occurred (Sinner and Zajicek).[9]

Of particular interest is the effect of this procedure on the clinical course of the patient. In patients with solitary noncalcified masses the need for thoracotomy will be eliminated in the majority of cases. Needle biopsy permits a specific enough diagnosis of small cell carcinoma (oat cell) to preclude thoracotomy and allow institution of medical therapy.[10] It is useful in the evaluation of metastatic disease to the lung and is also very helpful in patients whose general medical condition or advanced disease prevents thoracotomy.[2]

The main contraindications to percutaneous needle biopsy are situations in which hemorrhage is likely.[7] These include severe and recent hemoptysis, bleeding diathesis, and suspected vas-



Fig. 3: 53-year-old female with three-week history of productive cough and hemoptysis. Needle biopsy of the mass revealed undifferentiated large cell carcinoma of the lung. The patient refused surgery and was referred for radiation.



Fig. 4: 60-year-old asymptomatic male. Cavitated mass was found incidentally. Needle biopsy revealed an epidermoid carcinoma of the lung. The patient underwent a lobectomy and has done well.

cular lesion. Very large blebs and bullae may also preclude the use of this technique.

It is also important to have access to pathology personnel trained and interested in the interpretation of needle biopsy specimens.

Conclusions

Percutaneous needle aspiration and core biopsy is a simple and safe technique. In the evaluation of suspected neoplastic and inflammatory masses of the lung needle biopsy is the procedure of choice.

References 1. Herman PG, Hessel SJ: The diagnostic accuracy and complications of closed lung biopsies. *Radiology* 125:11, 1977. 2. Mark JB, Marglin SI, C'stellino RA: The role of bronchoscopy and needle aspiration in the diagnosis of peripheral lung masses. *J Thorac Cardiovasc Surg* 76:266, 1978. 3. Landman S, Burgener FA, Lim GHK: Comparison of bronchial brushing and percutaneous needle aspiration biopsy in the diagnosis of malignant lung lesions. *Radiology* 115:275, 1975. 4. Mehnert JH, Brown MJ: Percutaneous needle core biopsy of peripheral pulmonary masses. *Am J Surg* 136:151, 1978. 5. Fennessey JJ et. al.: Transcatheter biopsy in the diagnosis of diseases of the respiratory tract: an evaluation of seven years' experience with 693 patients. *Radiology* 110:555, 1974. 6. Zornoza J et al: Aspiration biopsy of discrete pulmonary lesions using a new thin needle: results in the first 100 cases. *Radiology* 123:519, 1977. 7. McCartney RL: Hemorrhage following percutaneous lung biopsy, *Radiology* 112:305, 1974. 8. Norenberg R, Claxton Jr. CP, Takano T: Percutaneous needle biopsy of the lung: report of two fatal complications. *Radiology* 114:499, 1975. 9. Sinner WN, Zajicek J: Implantation metastasis after percutaneous transthoracic needle aspiration biopsy. *Radiology* 123:536, 1977. 10. Sinner WN, Sandstedt B: Small-cell carcinoma of the lung. Cytological roentgenologic, and clinical findings in a consecutive series diagnosed by fine-needle aspiration biopsy. *Radiology* 121:269, 1976.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Primary Lymphoma of the Thyroid and Hashimoto's Thyroiditis

SHERI L. ROLF, UNIVERSITY OF LOUISVILLE MEDICAL STUDENT
CONSULTANTS: R.C. KRATZ, M.D., G.R. TANNER, M.D. and J. CRISSMAN, M.D.

Two cases of primary lymphoma of the thyroid occurring at a community hospital in the Greater Cincinnati area are reported. Clinical features of five other cases listed in the Cincinnati Neoplastic Disease Registry are summarized. The difficulties in diagnosis of thyroid lymphoma are considered, and the association of primary thyroid lymphoma with Hashimoto's disease is discussed.

Primary lymphoma of the thyroid is an uncommon disease; Mikal noted that only 165 cases had been reported prior to 1964.[1] Recently, two patients with this disease have been diagnosed at Saint Luke Hospital, Fort Thomas, Kentucky. Saint Luke Hospital is a community hospital with 290 beds located in the Greater Cincinnati area. Review of records of the Cincinnati Neoplastic Disease Registry has revealed an additional five cases occurring over the 30-year period, 1950-1979. Clinical details of the two patients diagnosed at Saint Luke Hospital follow. Clinical features of all seven cases appearing in the Greater Cincinnati Neoplastic Disease Registry since 1950 are summarized in Table I.

Case I

E.B. was a 53-year-old Caucasian woman who originally presented in 1977 with a symmetrically enlarged, tender thyroid gland and complaints of local pain and dysphagia. At that time she was treated symptomatically with a remission of her symptoms.

Following an asymptomatic period of two years duration, she returned in 1979 with similar complaints and was hospitalized for further evaluation. Laboratory tests included normal CBC, differential leukocyte count, SMA-12, 24-hour RAIU, and antithyroglobulin antibody. The TSH was elevated (27μIU/ml; reference range, 1.9-5.4 μIU/ml). Chest x-ray was normal. Thyroid scan revealed an enlarged right lobe without hot or cold nodules.

At surgery, the thyroid was found to be firmly adherent to the trachea and strap muscles with extracapsular tumor extension into the superior mediastinum and in the region of the right recurrent laryngeal nerve. A frozen section was reported as probable lymphoma, and a right lobectomy and isthmectomy leaving the tissue around the recurrent laryngeal nerve was performed. No areas of gross abnormality were noted in the left lobe. Final diagnosis was of follicular lymphoma of the thyroid composed of poorly differentiated lymphocytic lymphocytes with concurrent changes of Hashimoto's thyroiditis.

Postoperative staging studies included lymphangiogram, bone marrow studies, serum protein electrophoresis, liver and spleen scan, and IVP, all of which were normal.

Postoperatively, 4000 rads of Co^{60} were delivered to the entire neck and superior mediastinum over a four-week period. E.B. is doing well six months postoperatively.

Case II

B.M. was a 54-year-old Caucasian woman who presented herself in 1978 with an enlargement of the right lobe of her thyroid gland which had been present for six to eight weeks. She had been treated symptomatically for a nodular goiter for

From the Departments of Otolaryngology and Pathology, University of Cincinnati, Cincinnati, Ohio.

TABLE I: SUMMARY OF CLINICAL FEATURES OF SEVEN CASES OF PRIMARY THYROID LYMPHOMA OCCURRING IN THE GREATER CINCINNATI AREA, 1950-1979.

CASE NO.	YEAR	AGE	SEX	DIAGNOSIS	ASSOCIATED HISTOLOGY	TREATMENT	SURVIVAL
I	1979	55	F	Follicular lymphoma (poorly differentiated lymphocytic)	Hashimoto's thyroiditis	Right lobectomy and isthmectomy Co^{60}	Alive without recurrence at 3 months
II	1978	54	F	Histiocytic lymphoma	Hashimoto's thyroiditis	Right lobectomy and isthmectomy with modified right neck dissection Co^{60}	Alive without recurrence at 15 months
III	1970	31	F	Well differentiated follicular lymphoma		Right lobectomy and isthmectomy	Alive without recurrence at 2 years (unable to locate patient after 2 years)
IV	1968	41	F	Malignant lymphoma, reticulum cell type		Left lobectomy Co^{60} Oncovin, Cytoxan, Prednisone, Allopurinol	Expired with multiple metastases after 58 months
V	1966	68	F	Malignant lymphoma, Histiocytic type		Isthmectomy Co^{60}	Expired with aspiration pneumonia after 2 months. No autopsy.
VI	1965	50	F	Giant follicular lymphoma		Right lobectomy followed by left lobectomy 2 years later Co^{60}	Alive without recurrence at 10 years
VII	1962	37	F	Malignant lymphoma, Histiocytic type	Hashimoto's thyroiditis	Left thyroid lobectomy	Alive without recurrence at 15 years

several years. Physical examination did not reveal pain or tenderness over the gland. The lobe moved well when the patient swallowed, and dysphagia was not noted.

Upon hospitalization, laboratory tests performed included CBC, differential leukocyte count, SMA-12, 24-hour RAIU, T-3, T-4, and PBI. PBI and T-4 values were both below normal, and T-3 and 24-hour RAIU were borderline low. Hemoglobin was 8.7 gm/dl. All other laboratory studies were normal. Chest x-ray was normal. Thyroid scan revealed presence of a cold nodule in the right lobe of the gland.

At surgery, a firm, whitish mass measuring 4 x 5 cm was found in the right lobe and isthmus. There was no evidence of involvement of the left lobe or perithyroidal soft tissue. On the basis of frozen section diagnosis of possible small cell carcinoma or lymphoma, right lobectomy and isthmectomy and a modified right neck dissection were performed. Final histologic diagnosis was histiocytic lymphoma of the thyroid with the regional lymph nodes showing focal involvement with histiocytic lymphoma. Hashimoto's disease of the thyroid was also present.

Postoperative staging studies included lymphangiogram, liver, and spleen scan, serum protein electrophoresis, and bone marrow studies, all of which were normal.

B.M. was scheduled to receive 4000 rads of Co^{60} for over four weeks to the thyroid, superior mediastinum, and anterior cervical chain areas but terminated her treatments after having received 3400 rads. B.M. is doing well with no evidence of recurrence 15 months after her surgery.

Discussion

Primary lymphoma of the thyroid is a rare disease usually occurring in elderly women.[4] All sev-

en cases included in this series have involved women whose ages at the time of diagnosis ranged from 31 to 68 years. (Table I). Average age at the time of diagnosis in this series was 47.7 years as compared with an average age of 60.2 years reported by Woolner, et al in 1965.[4]

Diagnosis of primary lymphoma of the thyroid presents a formidable challenge to the pathologist.[5] Rarely is there cause to suspect lymphoma clinically prior to surgery.[5] Presenting symptoms are varied. A large goiter of recent origin is the frequent presentation but primary lymphoma may also occur in longstanding goiter as in both Cases I and II.[6] Glands are frequently adherent and immovable (Case I) but may be freely movable as in Case II.[5,6] Presence of a "cold nodule" is characteristically revealed by thyroid scan (Case II) but, as illustrated by Case I, this is not a constant finding.[5] Thus, the pathologist and surgeon are rarely, if ever, presented with a "characteristic" clinical picture.

Histologic findings also may be varied and perplexing.[4] Hashimoto's thyroiditis is frequently a concommitant finding in primary thyroid lymphoma.[3,6] (Cases I and II). Either of these diseases may result in obliteration of the normal architecture of the thyroid, thus rendering frozen section diagnosis inadequate.[2] Stromal fibrosis, when present, is usually associated with areas of Hashimoto's thyroiditis and is extremely variable in nature.[5] Definitive diagnosis of lymphoma of the thyroid, particularly in those instances in which Hashimoto's thyroiditis is also present, usually must await examination of multiple permanent sections from various areas of the surgical specimen.[2]

An association between primary lymphoma of the thyroid and Hashimoto's disease, an autoimmune disease involving the thyroid, has been well recognized.[2,3,4,5] Hashimoto's thyroiditis was a concommitant finding in both Cases I and II presenting at Saint Luke Hospital as well as in one of the cases of thyroid lymphoma listed in the Cincinnati Neoplastic Disease Registry. Although the exact nature of this association has yet to be defined, ultrastructural studies seem to suggest that at least histiocytic lymphoma of the thyroid may be derived from transformed lymphocytes, probably of B-Cell origin, which may arise in Hashimoto's thyroiditis.[5] It has also been suggested that thyroid lymphoma may be dependent upon thyroid-stimulating hormone[2] which is frequently elevated in Hashimoto's disease.

Summary

Two cases of primary lymphoma of the thyroid with concommitant Hashimoto's thyroiditis occurring at a community hospital were reported. Records of the Cincinnati Neoplastic Disease Registry were reviewed and clinical features of an additional five cases of thyroid lymphoma were summarized.

Due to the varied clinical presentation of thyroid lymphoma, this disease is rarely suspected clinically prior to surgery. It may thus present a

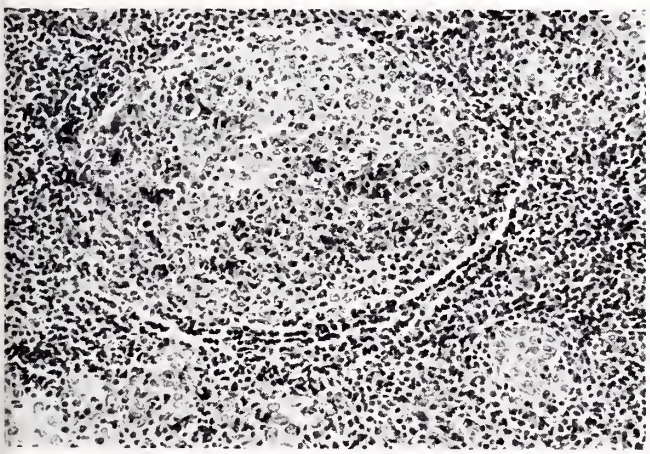


FIG. 1: This photo micrograph demonstrates a lymphoid follicle in the thyroid gland. Note the epithelial structures in the lower left.

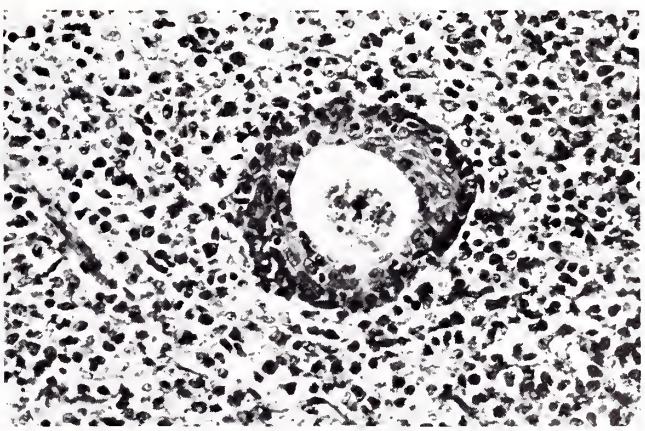


FIG. 2: Neoplastic lymphocytes surrounding residual thyroid epithelium. Many of the lymphocytes appear larger and represent transformed cells or "histiocytes".

formidable diagnostic challenge to the pathologist, particularly when there is concurrent Hashimoto's thyroiditis. Although the association between thyroid lymphoma and Hashimoto's disease is well established, the nature of this association is only speculative at present and remains to be defined.

References 1. Mikal S: Primary lymphoma of the thyroid gland. *Surgery,* 55:233-239, 1964. 2. Shin KH, Lott JS, Corbett WE, et al: Malignant lymphoma of the thyroid gland. *Can J Surg,* 19:442-445, 1976. 3. Taylor I: Malignant lymphoma of the thyroid. *Br J Surg,* 63:932-933, 1976. 4. Woolner LB, McConahey WM, Beahrs OH, et al: Primary malignant lymphoma of the thyroid. Amer J Surg 111:502-523, 1966. 5. Burke JS, Butler JJ, Fuller LM: Malignant lymphomas of the thyroid. *Cancer* 39:1587-1602, 1977. 6. Lindsay S, Dailey ME: Malignant lymphoma of the thyroid gland and its relation to Hashimoto disease: A clinical and pathologic study of 8 patients. *J Clin Endocrinol,* 15:1332-1352, 1955.

Acknowledgements

Maxine Berry, Department of Medical Records, St. Luke Hospital. Tina Link, Department of Medical Photography, University of Cincinnati.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

Clinical Approach to the Choice of Antimicrobial Therapy, Case #17: Septic Arthritis

CHIN HAK CHUN, M.D., MARTIN J. RAFF, M.D. and JULIO C. MELO, M.D.

This is the seventeenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antibiotics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

A 25-year-old male is seen by his physician with a five-day history of mild tenderness involving the lower back, both wrists and the left knee joint. During this period, he had also felt as if he was febrile and this sensation was accompanied by slight chills. Earlier in the day he had awoken with a warm, swollen and very tender left knee. He has been unable to bear weight on his left leg or to walk without limping and is now experiencing shaking chills. The patient denies any recent trauma, infections of the skin, or symptoms suggestive of upper or lower respiratory tract infection. He has had frequent sexual contacts with several female partners, none of whom were known to have a venereal disease. He denies elicit drug use, blood transfusions, or contact with jaundiced persons. There is no history of dysuria or urethral discharge.

Physical examination reveals a healthy male in acute distress with fever and severe pain in his left knee. Temperature is 102.5°F orally, pulse 102/min, respiratory rate 18/min and blood pressure 110/60 mm Hg. Several papular skin lesions each measuring several millimeters in diameter are found on the palms and scattered over his torso. Scrapings from these produces a small amount of seropurulent fluid. Examination of the heart, lungs and abdomen is unremarkable. The left knee is moderately swollen with overlying warmth and erythema, and fluid is demonstrable by joint fluctuance. Slight pressure or movement of the joint causes severe pain. The right sacroiliac joint is tender to palpation. Although the wrists are not swollen, the patient complains of pain on abduction. Milking of the urethra yields no discharge. A urethral swab is sent for gram stain and culture. X-ray of the left knee shows widening of the joint space, supporting the physical evidence of intra-articular effusion. Chest x-ray and ECG are normal. The peripheral WBC count is 11,200/mm^3 with 86% neutrophils and 4% bands, and the erythrocyte sedimentation rate is 38 mm/hr. Automated blood chemistries which include tests of hepatic function are within normal limits and HBsAg or anti-HBsAg antibody are not detected in the serum. The differential diagnosis should now include:

A. Acute rheumatic fever
B. The prodromal stage of hepatitis B infection.
C. Reiter's disease (syndrome).
D. Gonococcal arthritis.
E. All of the above.

Answer: E. All of the diseases listed above are characterized by joint involvement of varying degrees, often accompanied by a cutaneous eruption.

From the U.S. Public Health Service Hospital, Staten Island, NY and the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, Louisville, KY. 40292

A migratory oligo- or polyarthritis is the most common clinical manifestation of acute rheumatic fever (ARF). However, the joint involvement is predominantly migratory and transient in ARF and the severe pain and limitation of motion being experienced by this patient is far greater than what would be expected if due to ARF alone. Not only is there no history of sore throat in this patient, but other diagnostic criteria of ARF such as carditis, erythema marginatum, chorea, and subcutaneous nodules are also absent.

About 25% of patients with type B (serum) hepatitis experience a prodromal stage characterized by acute polyarthritis.[2,3] This most frequently involves the small joints of the hands and is accompanied by fever and a cutaneous eruption which can be papular. The pattern of joint involvement is variable but large joints such as the knees are most commonly affected. It may imitate the clinical picture of rheumatoid arthritis.[3] The patient described here however, lacked a typical history of exposure and HBsAg and antibody tests were negative.

Reiter's disease is usually diagnosed based upon the presence of poly-arthritis, urethritis, and inflammatory eye lesions(i.e., conjunctivitis, keratitis, iritis, or optic neuritis).[4] Skin lesions begin as yellowish waxy papules, often on the palms and soles.[5] They are papulopustular and contain only keratotic material. These develop into keratodermia blenorrhagica in about 10% of cases. Circinate balanitis may develop in association with this. These penile lesions are non-tender as are the mucous membrane erosions seen on the tongue and tonsillar fauces. However, urethritis usually antedates arthritis by about two weeks and the skin lesions usually develop several weeks after the onset of arthritis. Involvement of the sacroiliac joint tends to be bilateral.[6] Ankylosing spondylitis may develop in about one third of patients with Reiter's disease.[4]

The most likely diagnosis in the patient described here is acute disseminated gonococcal infection with septic arthritis.[7] The usual form of this disease occurs in women in 80% of cases. This is probably because primary gonorrheal infection in the female is more often asymptomatic than in the male, and as such goes untreated and then disseminates.[7,8,9,10,11,12] Patients have systemic manifestations including chills, fever, malaise, a polyarticular syndrome and cutaneous lesions. The erythematous papules on the skin represent septic dermal infarcts. They may develop hemorrhagic, necrotic or vesiculopustular centers, often above an ecchymotic base. There is tenosynovitis which may occur in association with septic arthritis and which was probably responsible for the wrist involvement in this patient. Actual septic arthritis most commonly occurs in the larger joints. When the sacroiliac joint is involved in gonococcal infection it tends to be unilateral rather than the bilateral form seen in Reiter's disease.[6,7,8]

Each of the following should now be undertaken **except:**

A. Arthocentesis of the left knee
B. Blood cultures
C. Begin therapy with penicillin
D. Gram stain and culture of the material expressed from the cutaneous lesions, and of the urethral swab
E. Latex fixation test for rheumatoid factor

Answer: C. Do **not** begin therapy until you have determined a probable etiology for the arthritis. The best means by which to establish the diagnosis is through stains and bacteriologic studies of the skin lesions, synovial fluid and blood. Although the clinical picture does not suggest rheumatoid arthritis, it would not be inappropriate to obtain a specimen for rheumatoid factor.

Arthrocentesis of the left knee yields 30 ml of seropurulent fluid. The viscosity of the fluid as measured by the "string-test"is markedly reduced and mucin clot formation is poor. The synovial fluid leucocyte count is 98,000/mm^3 with 95% polymorphonuclear neutrophils; the glucose level is 30% of the plasma glucose; and the lactic acid level is 24 mg/dl. Gram-stain of the synovial fluid reveals many polymorphonuclear leucocytes with a few intraleucocytic gram-negative cocci and diplococci. Gram-stains of the skin lesions and urethral swab are negative. Based upon the results of this diagnostic workup, gonococcal arthritis is the most likely diagnosis for this patient. Examination of the gram-stained syno-

vial fluid or skin lesions fails to reveal gonococci in the majority of cases of gonococcal arthritis.[1,10,12] Although blood cultures are often positive if taken early in the course of illness and before institution of therapy synovial, fluid cultures are most commonly negative. Diseases due to several other organisms may present with arthritis and cutaneous eruption, and some may be confused with gonococci on gram stains.[13,14]

This is particularly true for *Neisseria meningitidis;* however *H. influenzae, Moraxella osloensis,* and *Streptobacillus moniliformis* should be included in the differential diagnosis.[13] *Neisseria meningitidis,* can cause septic arthritis, but this usually occurs along with rather characteristic manifestations of meningococcal septicemia.[5] *Hemophilus influenzae may mimic gonococci on the gram stain. However, H. influenzae* arthritis is primarily seen in children less than three years of age and is rare in adults.[14,16,17] Careful examination of the gram-stain may often enable one to differentiate this bacteria from *Neisseria gonorrheae.* The latter organisms tend to be intracellular, more coccoid, tend to occur in diplococcal forms, and possess barely visible capsules under microscopic examination. *Streptobacillus* infection occurs after a rat bite, and the cutaneous eruption differs significantly from that of disseminated gonococcemia. In this case, the mildly elevated synovial fluid lactic acid level is also suggestive of gonococcal rather than non-gonococcal arthritis in which the average levels frequently exceed 500 mg/dl.[18]

At this point, which of the following antimicrobial agent(s) should be given immediately? The patient is not allergic to penicillin.

A. Aqueous penicillin G, 2 million units IV q 4h for three to four days followed by ampicillin 500 mg p.o. qid to complete at least 10 days of total therapy.
B. Ampicillin 3.5g plus 1.0g probenecid orally, followed by 500 mg of ampicillin p.o. qid for 7 to 10 days.
C. Oral tetracycline 1.5g p.o. followed by 500 mg p.o. qid for 10 days.
D. Oral phenoxy-methyl penicillin (Pen-V-K) 250 mg qid for 7 to 14 days.
E. Vancomycin 500 mg p.o. qid for two weeks.

Answer: A, or B, or C.

In severe cases of arthritis, it is prudent to begin initial therapy with parenteral antibiotics until a reasonable clinical response is obtained. Strains of *N. gonorrhae,* isolated from patients with disseminated gonococcemia (arthritis-dermatitis syndrome) are usually very sensitive to penicillin G.[18] A significant degree of response should occur within 72 hours in the majority of cases.[2,11] Intravenous penicillin can then be replaced with oral ampicillin. For those patients with less severe arthritis or for the small number of selected patients in whom outpatient care is deemed suitable, oral ampicillin from the beginning is also effective.[11] Oral amoxicillin is expected to be at least as effective as ampicillin.[11] Oral tetracycline is also an effective agent, especially in penicillin-allergic patients.[12] Oral penicillins such as phenoxymethyl penicillin (Pen-V-K) are less effective and should be avoided. Vancomycin is an inappropriate drug to use against gonococcal infection, even if given by a route through which absorption is likely to occur. Vancomycin is not absorbed from the gastrointestinal tract.

Within the next 24 hours cultures of blood and the urethral swab grow *N. gonorrheae.* The patient begins to improve following the arthrocentesis and administration of intravenous penicillin. However, the knee joint again becomes tender and swollen, with reaccumulation of synovial fluid. What would be the proper management at this point?

A. Repeated needle aspiration as needed for the next 24 to 48 hours.
B. Open surgical drainage.
C. The presumed etiologic agent may be a penicillinase-producing strain. Stop penicillin and begin intramuscular spectinomycin or intravenous cefoxitin.
D. Begin intra-articular injection of penicillin.
E. Amputate.

Answer: A. Aspiration will remove inflammatory leucocyte breakdown products from the synovial space.

In some patients, synovial fluid may reaccumulate despite initial arthrocentesis and antimicrobial therapy. Arthrocentesis should be repeated daily or even twice daily for the next 24 to 48 hours.[8] There is little reason to forsake the initial

choice of antibiotic at this point. As mentioned earlier, systemic gonococcemia is usually caused by penicillin-sensitive strains. If a penicillin-resistant strain is responsible for the arthritis, the clinical response will presumably be delayed or not occur within a reasonable time period. If gonococci isolated are found to be resistant, spectinomycin 2.0 gm given intramuscularly twice daily for seven days or intravenous cefoxitin will be the preferred therapy.[20,21,22] Where gonococci are not isolated, alterations in antimicrobial therapy should depend upon the clinical response of the inflamed joint. Since therapeutic levels in the synovial fluid are easily achievable with penicillin or the other alternatives mentioned above, direct injection into the joint space is not necessary.[8,23,24,25] In fact, some antibiotics may induce an intense inflammatory reaction, worsening the condition.[8]

References 1. Taranta A: Rheumatic Fever, in arthritis and allied conditions, McCarty DJ (ed.) p825-869, Lea and Febiger, Philadelphia, 1979. 2. Duffy J, Lidsky MD, Sharp JT, et al: Polyarthritis, polyarteritis and hepatitis B. *Medicine* 55:19-37, 1976. 3. Levo Y: Extrahepatic manifestations of hepatitis B virus infection. Israel J Med Sci 15:276-282, 1979. 4. Calin A: Reiter's syndrome. *Med Clin N Amer* 61:365-376, 1977. 5. Good AE: Reiter's disease: A review with special attention to cardiovascular and neurologic sequelae. *Sem Arth Rheum* 3:253-286, 1974. 6. Weinberger HW, Ropes MW, Kukla JP, et al: Reiter's syndrome, clinical and pathologic observations. *Medicine* 41:35-91, 1962. 7. Holmes KK, Counts GW and Beaty HN: Disseminated gonococcal infection. *Ann Intern Med* 74:979-993, 1971. 8. Keiser H, Ruben FL, Wolinsky E, et al: Clinical forms of gonococcal arthritis. *N Engl J Med* 279-234-240, 1968. 9. Holmes KK, Counts GW, Beaty HN: Disseminated gonococcal infection. *Ann Intern Med* 74:979-993, 1971. 10. Garcia-Kutzbach A, Dismuke SE, and Masi AT: Gonococcal arthritis: clinical features and results of penicillin therapy. *J Rheumatol* 1:210-221, 1974. 11. Brandt KD, Cathcart ES, et al: Gonococcal arthritis. *Arthritis Rheum* 17:503-510, 1974. 12. Handsfield HH, Wiesner, P. J. and Holmes KK: Treatment of the gonococcal arthritis-dermatitis syndrome. *Ann Intern Med* 84:661-667, 1976. 13. Krauss DS, Aronson MD, Gump DW, et al: *Hemophilus influenzae* septic arthritis. *Arth Rheum* 17:267-271, 1974. 14. Raff MJ, Dannaher CL: *Hemophilus influenzae* septic arthritis in adults. Report of a case and review of the literature. *J Bone Joint Surg* 56A:408-412, 1974. 15. Byeff, PD and Suskiewicz L: Meningococcal arthritis. *JAMA* 235:27-52, 1976. 16. Newman, JH: Review of septic arthritis throughout the antibiotic era. Ann Rheum Dis 35:198-205, 1976. 17. Goldenberg DL and Cohen AS: Acute infectious arthritis. *Amer J Med* 60:369-377, 1976. 18. Brook I, Reza MJ, Brickness KS, et al: Synovial fluid lactic acid. *Arthritis Rheum* 21:774-779, 1978. 19. Wiesner PJ, Handsfield HH and Holmes KK: Low antibiotic resistance of gonococci causing disseminated infection. *N Engl J Med* 228:1221-1222, 1973. 20. Gonorrhea CDC recommended treatment schedules, 1979. Morbidity and Mortality Weekly Report. 28(2):13-21, 1979. 21. Seigel MS, Thompson SE, Perine PL, *et al:* Treatment of uncomplicated gonococcal urethritis with cefoxitin: comparison with penicillin. Rev Infect Dis 1:183-188, 1979. 22. Berg SW, Kilpatrick ME, Harrison WO, McCutchan JA: Cefoxitin as a single dose treatment for urethritis caused by penicillinase producing *Neisseria gonorrhoeae*. *N Engl J Med* 301:509-511, 1979. 23. Drutz, DJ, Schaffner W, Hillman JW, et al: The penetration of penicillin and other antimicrobials into joint fluid. *J Bone Joint Surg* 49-A:1415-1421, 1967. 24. Nelson JD: Antibiotic concentration in septic joint effusions. *N Engl J Med* 284:349-353, 1971. 25. Schurman DJ, Hirschman HP and Nagel DA: Antibiotic penetration of synovial fluid in infected and normal knee joints. *Clin Orthoped* 136:304-310, Oct. 78.



Tagamet®
brand of
cimetidine

How Supplied:
Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

Perdiem

empties the bowel gently...

by filling it.

Perdiem™ . . . the re-educative laxative
. . . relieves constipation by a unique combination o
physiological bulk stimulus and gentle pharmacologi
encouragement of peristaltic response



WILLIAM H. RORER, INC
Fort Washington, PA 19034

ggisnness of
e Bowels

nstipation

ronic
nstipation

bituation to
xatives

buse of
xatives



Made in West Germany
(Please see next page for prescribing information)

Perdiem™

Prescribing Information

ACTIONS: Perdiem™, with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION: Natural vegetable derivatives. A unique blend of psyllium and senna (Plantago Hydrocolloid with Cassia Pod Concentrate).

INDICATION: For relief of constipation.

PATIENT WARNING: Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

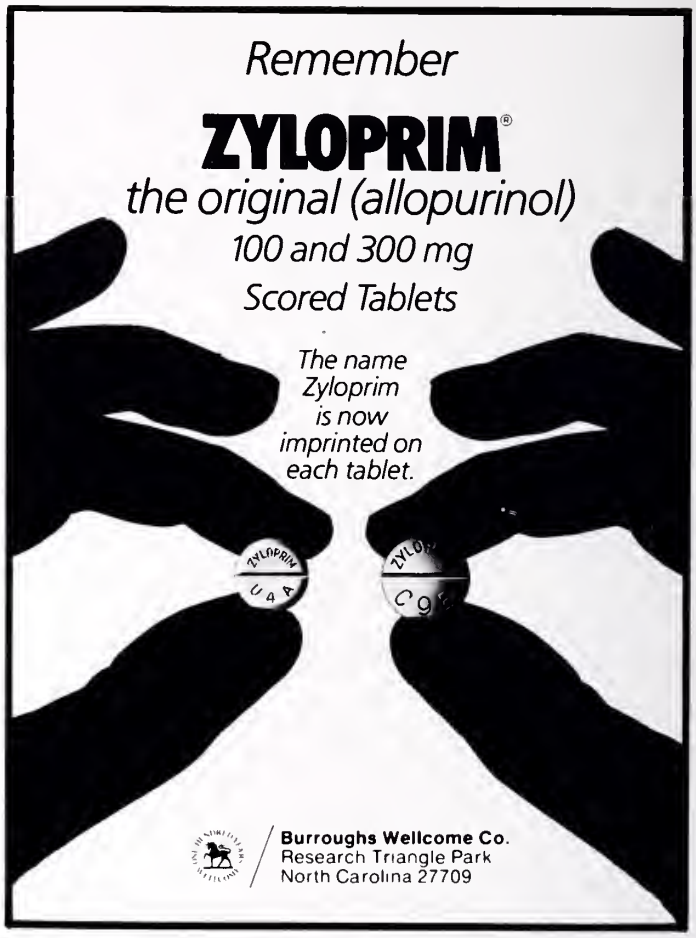
FOR CHILDREN: From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

HOW SUPPLIED: Granules: 100 gram (3.5 oz.) and 250 gram (8.8 oz.) canisters.

ROHER

WILLIAM H. RORER, INC.
Fort Washington, PA 19034



pepi

The Physical Education Public Information (PEPI) Project is a public service campaign developed by AAHPER to inform Americans about the value and benefits of school physical education programs.

The creation of these public service advertisements was made possible through the generosity of the Gillette Company, Safety Razor Division. Selected photos courtesy of the 1975 Scholastic/Kodak Photography Awards.

On behalf of our 50,000 professional members, we solicit the cooperation of publishers in bringing these public service messages to the public. Advertisements have been provided in a variety of sizes and we hope you will use them on a space available basis.

AAHPER

American Alliance for Health, Physical Education & Recreation
1201 16th Street, N.W.
Washington, D.C. 20036

Hypercalcemia in Malignancy

Hypercalcemia commonly complicates the treatment of the cancer patient. Diagnosis may be difficult as one patient's nonspecific complaints may be attributed to terminal disease or cerebral metastases, while another patient may be entirely asymptomatic. The cause of hypercalcemia frequently is metastatic bony destruction. Certain carcinomas produce an ectopic parathyroid hormone which results in a syndrome biochemically similar to primary hyperparathyroidism. Still other ectopic factors have been implicated, such as the prostaglandin E_2. Sources of hypercalcemia also may be immobilization and dehydration, both common in the cancer patient. The importance of recognizing hypercalcemia lies in the possibility of providing adequate long-term treatment. Fluid therapy and diuretics are effective in acute cases and oral phosphate can produce satisfactory long-term suppression of hypercalcemia. Other treatment modalities include corticosteroids, mithramycin, and indomethecin. Dramatic improvement in the cancer patient may result from the diagnosis and treatment of hypercalcemia.

Case Report

A 55-year-old white woman presented to a local physician in August 1979, with a palpable node in her left neck. The node was excised in September 1979, and the diagnosis made of metastatic squamous cell carcinoma. Lingual, oral and pharyngeal biopsy results were negative and bronchoscopy was normal. The patient received one course of radiation therapy to her left neck. In December 1979, she developed a lytic nodule on her right parietal skull which, on biopsy, also was found to be squamous cell carcinoma. X-ray studies of the chest and skull, and bone, brain and liver spleen scans showed no other abnormality.

On 25 January 1980, the patient was admitted to the hospital for radiation therapy of parietal metastasis. At that time, a small mass was noted in her lower anterior left neck that appeared to be a stitch abscess, secondary to the excision of the left neck metastasis.

The patient's medical history included peptic ulcer disease, hypertensive cardiovascular disease with mild congestive heart failure and angina of six years duration.

The only remarkable findings of a physical examination were a 2 x 3 cm nodule on the right parietal skull and a 1 cm mass at the base of the left anterior neck.

Computerized tomography (CT) of the head showed a destructive lesion of the high right parietal bone. A radiation therapy consultant recommended palliative treatment of the scalp metastasis and this treatment was begun. The patient was increasingly lethargic, refusing both food and fluids. The left neck mass enlarged markedly and a needle biopsy again disclosed squamous cell carcinoma. A medical oncology consultation was obtained and at this time the patient's calcium was noted to be 13.9 mg%. She was placed on intravenous fluid (D_5NS at 200 cc/hr) and diuretics (furosemide 20 mg bid). Her serum calcium was 11.7 mg% the next day, when she developed severe chest pain. Serial electrocardiograms and cardiac isoenzymes confirmed acute inferior infarction. Because her serum calcium remained

From the Department of Surgery, University of Louisville School of Medicine, and the University Surgical Service, Norton Division of Norton-Children's Hospital, Louisville, Kentucky.

elevated, she received mithramycin, 1100 μg intravenously. She suffered respiratory arrest secondary to upper airway obstruction from the enlarging left neck mass, and required intubation and mechanical ventilatory support.

The patient's serum calcium slowly increased. She received a second dose of mithramycin (1000 μg). A tracheostomy was performed and the trachea was found to deviate to the right side posteriorly. Her left neck mass continued to enlarge. She received chemotherapy, consisting of the methotrexate, bleomycin sulfate and Cis-platinum, to palliate the left neck mass.

There has been little change in the size of the patient's left neck and mass. She has developed superior vena cava syndrome, with swelling particularly in the neck and face. Her serum calcium has remained within normal limits, possibly due to the effect of the chemotherapy on the tumor mass.

Discussion

Clinical Presentation

The clinical presentation of the hypercalcemic patient may vary from no symptoms to a full-blown hypercalcemic crisis with nausea, vomiting, abdominal pain, lethargy, coma, dehydration, and renal failure.[1] The most common complaints are anorexia, nausea, constipation, polydipsia and polyuria.[2] Severe hypercalcemia may lead to the gastrointestinal manifestations of pancreatitis, peptic ulcer disease and adynamic ileus. The central nervous system can be affected, characterized by a patient's lassitude.[3] As hypercalcemia progresses, the patient may become confused, exhibit psychotic behavior, or become comatose. It is important to recognize that one particular organ system may be involved to the virtual exclusion of the others and that the diagnosis may be difficult. When a patient with severe hypercalcemia develops multiple complaints, this stage of the illness often is mistaken for the cachexia of terminal disease or cerebral metastases.[3] Sudden death has been reported in hypercalcemic patients, and is probably related to direct cardiogenic effects of hypercalcemia. The risk is reported present when the serum calcium exceeds 18 mg/100 ml,[4] or even 15 mg/100ml.[3]

Metastatic destruction of bone that causes hypercalcemia commonly occurs with breast cancer, multiple myeloma, lymphoma and leukemia. Ectopic hypercalcemia is most commonly due to lung and renal cell carcinomas, as well as head and neck, ovarian, liver, pancreatic, bladder or endometrial cancer or lymphoma.[5] In overall frequency of hypercalcemia associated with solid tumor, breast cancer is most frequent, followed by cancers of the lung, kidney, head and neck, cervix and prostate, neuroblastoma and melanoma.[1]

In a study by Bender[6] of 200 consecutive patients with untreated bronchogenic carcinoma the frequency of hypercalcemia was 12.5%, of which epidermoid accounted for the majority. Despite adenocarcinoma and small cell carcinoma being the cell types most frequently associated with osseous metastases, they were least frequently found with hypercalcemia. The absence of small cell carcinomas also was remarkable because it is the type of bronchogenic carcinoma most commonly associated with other paraneoplastic syndromes, especially ectopic ACTH and antidiuretic hormone production.[6]

Differential Diagnosis

Diagnosis of hypercalcemia involves logical, systematic consideration of several conditions: Vitamin D intoxication, immobilization, milk-alkali syndrome, sarcoidosis, thyrotoxicosis, and Addison's disease. However, often the diagnosis is between primary hyperparathyroidism and malignant disease.[3]

If hypercalcemia is the presenting complaint, certain etiologies are less likely when the following are determined: **1.** Vitamin D intoxication—through investigation of medicines ingested by patient; **2.** Milk-alkali syndrome—negative history of excessive intake of milk and absorbable alkali; **3.** Multiple myeloma and leukemia—normal serum protein electrophoresis, negative urinary Bruce-Jones protein, normal bone x-rays, negative marrow aspiration; **4.** Sarcoid—negative lymphadenopathy, negative skin lesions, normal chest-ray, normal serum proteins; **5.** Adrenal insufficiency—normal urinary excretion of 17-hydroxysteroids.[7]

Patients with ectopic hyperparathyroidism (or pseudohyperparathyroidism) may have all of the biochemical characteristics of primary hyperparathyroidism and the malignant tumor may not be clinically apparent.[4] In 1966, Lafferty[7] published a series of 50 cases of hypercalcemia, of which 60%

were due to ectopic hyperparathyroidism secondary to hypernephroma and bronchogenic carcinoma rather than primary hyperparathyroidism. He found that ectopic hyperparathyroidism was more likely to occur in a hypercalcemic patient when the serum calcium was more than 14 mg/100 ml, serum alkaline phosphate was increased, radiographic evidence of osteitis fibrosa was absent, and a significant degree of anemia present. A patient's history was helpful because the usual duration of symptoms in ectopic hyperparathyroidism was two to six months; whereas, a majority of patients with primary hyperparathyroidism had renal calculi, abdominal pains, or skeletal complaints for from two to 25 years.

Specifically, patients with pseudohyperparathyroidism have been found to have a lower level of the -COOH terminal fragment of parathormone (PTH) than patients with primary hyperparathyroidism.[8] This difference has formed the basis for separating the groups with minimal overlap.

Factors in differentiating between ectopic and primary hyperparathyroidism include clinical presentation, urinary cyclic amp ratio, and assay of peripheral circulating and parathyroid venous levels of PTH.[8] Overall, helpful means of establishing a diagnosis include the history of hypercalcemia prior to the development of cancer, the type of cancer, the effect of cancer treatment on the hypercalcemia, and selective venous sampling with radioimmunoassay for PTH.[5]

Mechanisms

The mechanism of hypercalcemia in malignancy are **1.** osteolytic metastases causing increased skeletal resorption and release of calcium into extracellular fluid exceeding the capacity of the body's homeostatic mechanism: **2.** excretion of polypeptides with parathormone-like activity by a nonparathyroid neoplasm; **3.** excretion of a factor, other than PTH-like hormones, capable of producing hypercalcemia (25-hydroxycholecalciferol, prostaglandin E_2); **4.** immobilization and dehydration; **5.** coindicental presence of a parathyroid adenoma and malignant neoplasms; and **6.** destruction of the adrenal glands by tumor causing Addison's disease (very rare).[9]

The most frequent cause of hypercalcemia is osseous metastases. Normal radiographs do not always exclude bony metastases.[10] There is no obvious correlation between the amount of clinically detectable bone involvement and the development or degree of hypercalcemia.[8] Osteolytic metastases accelerate skeletal resorption and release calcium into the extracellular fluid.[3]

Ectopic hyperparathyroidism is the clinical syndrome of a nonparathyroid tumor associated with hypercalcemia and hypophosphatemia. Squamous cell carcinoma of the bronchus and hypernephroma account for 50% of cases.[8] The hormone is different structurally and immunologically from that which is elaborated by normal, edematous, or hyperplastic parathyroid glands.[3] The PTH is activated by adenyl cyclase in the proximal tubule of the kidney with inhibition of sodium, phosphate and calcium reabsorption. In the distal tubule, it further inhibits phosphate reabsorption but increases calcium reabsorption.[11] Evidence for the production of ectopic PTH (iPTH) is: **1.** iPTH has been extracted from tumor tissues and detected in cancer tissue by immunofluorescence; **2.** production of iPTH by a primary hepatoma and by hypernephromas has been documented by A-V gradients across these organs; **3.** *in vitro* production of PTH by renal carcinoma cells has been demonstrated.[8]

Powell[12] noted in 1973 that half of cancer patients in a series had hypercalcemia and hypophosphatemia, but were without bony metastases and had no detectable PTH in peripheral blood or tumor tissue. He postulated that some hormonal substance other than PTH was mediating the hypercalcemia. Prostaglandins have been implicated as this substance in two animal systems of malignancy and hypercalcemia, in the mouse fibrosarcoma[13] and in the VX2 carcinoma of the rabbit.[14] These studies showed that PGE and PGE_2 caused enhanced bone resorption and was reversible with the administration of indomethacin to inhibit prostaglandin synthesis. Also, in patients with hypercalcemia and solid tumors, the excretion of the major urinary metabolite of the E prostaglandins has been shown to be significantly greater than normal.[15]

Of the six primary naturally occurring prostaglandins, PGE and PGE_2 markedly stimulate mobilization of calcium from bone. This effect is directly based upon stimulation of osteoclasts, and is independent of that of parathyroid hormone. When anti-inflammatory non-hormonal drugs are present (which inhibit prostaglandin synthe-

tase), the number of osteoclasts—increased in number and activity by the prostaglandins—is significantly reduced.

Treatment

Mild symptoms (serum calcium less than 13 mg%) in an asymptomatic patient may require no treatment other than for the cancer. Fluid replacement, using normal saline, helps to correct dehydration and also to restore intravascular volume. Since increased sodium excretion is accompanied by increased calcium excretion, fluid replacement also increases calciuresis.[1] Additionally, frequent administration of furosemide (40 to 80 mg q 4-6 hrs.) may add to significant calcium diuresis by blocking tubular reabsorption. In severely hypercalcemic patients with marked renal disease and azotemia, hemodialysis has been used; peritoneal dialysis has been used in long-term management.

Moderate hypercalcemia can be effectively controlled by the oral administration of phosphate when rapid therapeutic effect is not necessary. An effective oral dose is between 1.5 and 3.0 gm of phosphate daily; the primary limiting factor is resultant diarrhea.[1] Two advantages of phosphate are that it can be used in an emergency as intravenous therapy, and satisfactory suppression of hypercalcemia can be maintained for long periods of time with daily oral dosage[3] Mildly hypercalcemic patients with tumors not responsive to glucocorticoids or cytotoxic therapy usually respond to oral phosphate.[3]

Corticosteroids are effective therapy for hypercalcemia in patients with multiple myeloma, non-Hodgkin's lymphoma, or breast cancer. The mechanism of action is postulated to include both inhibition of bone resorption and inhibition of tumor growth.[1] The usual dose is 40 mg of prednisone daily; seven to 10 days constitutes an adequate trial period.

Mithramycin is a cytotoxic agent that inhibits bone resorption at doses lower than anti-tumor doses. It causes reversal of hypercalcemia in 48 hours and the effects may be transitory or last several days. The usual dose is 25 μg per kg body weight as a direct injection; this may be repeated 48 hours. In a study of 32 patients with hypercalcemia and disseminated breast cancer, one or two doses of mithramycin decreased the serum calcium levels in all cases.[13] In 18 instances they declined to within normal range.[13] There was no serious toxicity encountered in patients given single injections.

Indomethacin may be primarily indicated as therapy for hypercalcemia in patients who do not have bone metastases and who have undetectable serum levels of immunoreactive PTH. The efficacy may depend on the patient's tumor load, the site of production of the prostaglandins, and the response of bone.[8] In seven hypercalcemic cancer patients, indomethacin therapy was associated with a decrease in circulating PGE levels in six patients. In only two of these patients were serum PGE levels elevated prior to therapy and these were the only two in whom the serum calcium level was lowered.[17] Indomethacin treatment is not uniformly effective and can be ineffective in patients with severe hypercalcemia.[8]

Finally, a variety of other modalities have been used to treat cancer patients with hypercalcemia. Excision of a localized tumor has been successful in correcting hypercalcemia, especially in renal cell carcinoma. Radiation therapy has resulted in normal serum calcium in patients with squamous cell carcinoma of the lung or large bony metastases.[3] Variable success has been reported in the use of porcine and salmon calcitonin—which acts by inhibiting bone resorption and by promoting diuresis.[1] Treatment should fit the situation; however, the best treatment for hypercalcemia will always be treatment of the cancer.

References 1. Myers WP: Differential diagnosis of hypercalcemia and cancer. *Cancer* 27:258-72, Sept-Oct 1977. 2. Sealy WD and Bhattacharya SK: Paraneoplastic syndromes resulting from elaboration of ectopic hormones. *Current Probl in Surg,* May 1972. 3. Chopra D and Clerkin CP: Hypercalcemia and malignant disease. *Med Cl NA* 59:441-447, 1975. 4. Goldsmith RS: Treatment of hypercalcemia. *Med Cl NA* 56:951, 1972. 5. Ackerman NB and Winer N: The differentiation of primary hyperparathyroidism from the hypercalcemia of malignancy. *Ann Surg* 181:226-231, 1975. 6. Bender RA and Hansen H: Hypercalcemia in bronchogenic carcinoma: A prospective study of 200 patients. *Ann Int Med* 80:205-208, 1966. 7. Lafferty FW: Pseudohyperparathyroidism. *Medicine* 45:247-260, 1966. 8. Besarals A and Caro JF: Mechanisms of hypercalcemia in malignancy. *Cancer* 41:2276-2285, 1978. 9. Makoni C and Fisburne C: Hypercalcemia in squamous cell carcinoma of the skin. *JAMA* 239:1882-1883, 1978. 10. Schwartz SI: *Principles of Surgery,* 3rd Ed., New York: McGraw-Hill, 1979. 11. Ariyan S, Farber LR, Hamilton BP, et al: Pseudohyperparathyroidism in head and neck tumors. *Cancer* 33:159, 1974. 12. Powell D and Singer FR: Non-parathyroid humoral hypercalcemia in patients with neoplastic diseases. *NEJM* 289:176, 1973. 13. Perlia CP, Gubisch NJ, Walter J, et al: Methramycin treatment of hypercalcemia. *Cancer* 25:389, 1970. 14. Young DM, Ward JM, Prieur DJ: Hypercalcemia of malignancy. Animal Model: VX-2 carcinoma of rabbits. *Am J Path* 93:619-622, 1978. 15. Seyberth HW, Segra GV, Morgan JL, et al: Prostaglandins as mediators of hypercalcemia associated with certain types of cancer. *NEJM* 293:1278, 1975. 16. White H: *Principles of Biochemistry,* 6th Ed., New York: McGraw-Hill, 1978. 17. Robertson RP, Baylink DR, Metz S, et al: Plasma prostaglandin E in patients with cancer with and without hypercalcemia. *J Clin Endocr Metab* 43:1330-5, 1976.

BARBARA BELL, M.D.

Morris E. Chafetz, M.D.,
Founding Director of the National
Institute on Alcohol Abuse and Alcoholism,
is pleased to announce
the opening of a private
residential alcoholism treatment facility
in Charleston, South Carolina.



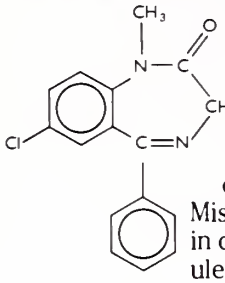
FENWICK HALL

John H. Magill, Executive Director. Layton McCurdy, M.D., Medical Director. Phone 803-559-2461.

Aspects of Management

What to tell your patients when you prescribe Valium® (diazepam/Roche)

Survey shows significant correlation between comprehension and compliance



A study of compliance patterns reveals that more than 6 out of 10 patients made errors in self-administration of prescribed medication, largely due to lack of comprehension.* Misunderstanding of directions resulted in discrepancies in dosage schedules as well as in length of therapy. Since evidence suggests that expanded verbal instructions may encourage compliance, the patient receiving Valium can benefit from your explanation of the dosage regimen, what response to expect from therapy and when to expect it.

What Valium (diazepam/Roche) can do

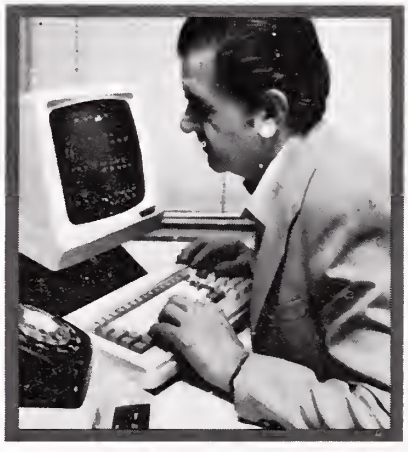
Your patients should know that 1) you are prescribing Valium as an adjunct to an overall program for the treatment of anxiety, and 2) Valium is given to relieve the symptoms of excessive anxiety and psychic tension while you help the patient to explore and deal with the underlying cause of his psychic tension.

Patients often interpret manifestations of anxiety, such as palpitations, hyperventilation, fatigue and muscle tension, as symptoms of a serious disease. However, when they learn that these symptoms can be relieved by Valium therapy, patients can more readily understand the psychosomatic origin of their symptoms and to accept the nonpharmacologic measures you may recommend.

The time you devote to these explanations can be a therapeutic measure in itself. Most anxious patients respond to and benefit from a frank discussion with an objective, sympathetic professional.

At the start of treatment, establishing therapeutic goals helps the patient to learn *what* to expect and *when* to expect it. Patients should also be informed that the medication will be gradually reduced and discontinued upon attainment of the therapeutic goal.

Tapering of dosage is rarely necessary in short-term therapy, but when consistently higher doses are used for extended periods, patients should know that the gradual reduction of medication will be implemented in order to avoid sudden recurrence of symptoms or possible withdrawal symptoms. Such recurrence is unlikely when the causes of the anxiety have been worked out satisfactorily within your overall treatment program.



What Valium (diazepam/Roche) can't do

It should be emphasized that there is no "magic" in any antianxiety tablet; that medication is not prescribed as a problem solver. Instead, Valium is being prescribed *as a temporary measure to relieve symptoms* generated by excessive anxiety and psychic tension.

* Boyd JR, *et al*: *Am J Hosp Pharm 31*: 485-491, May 1974

Before prescribing, please consult complete product information, a summary of which follows:

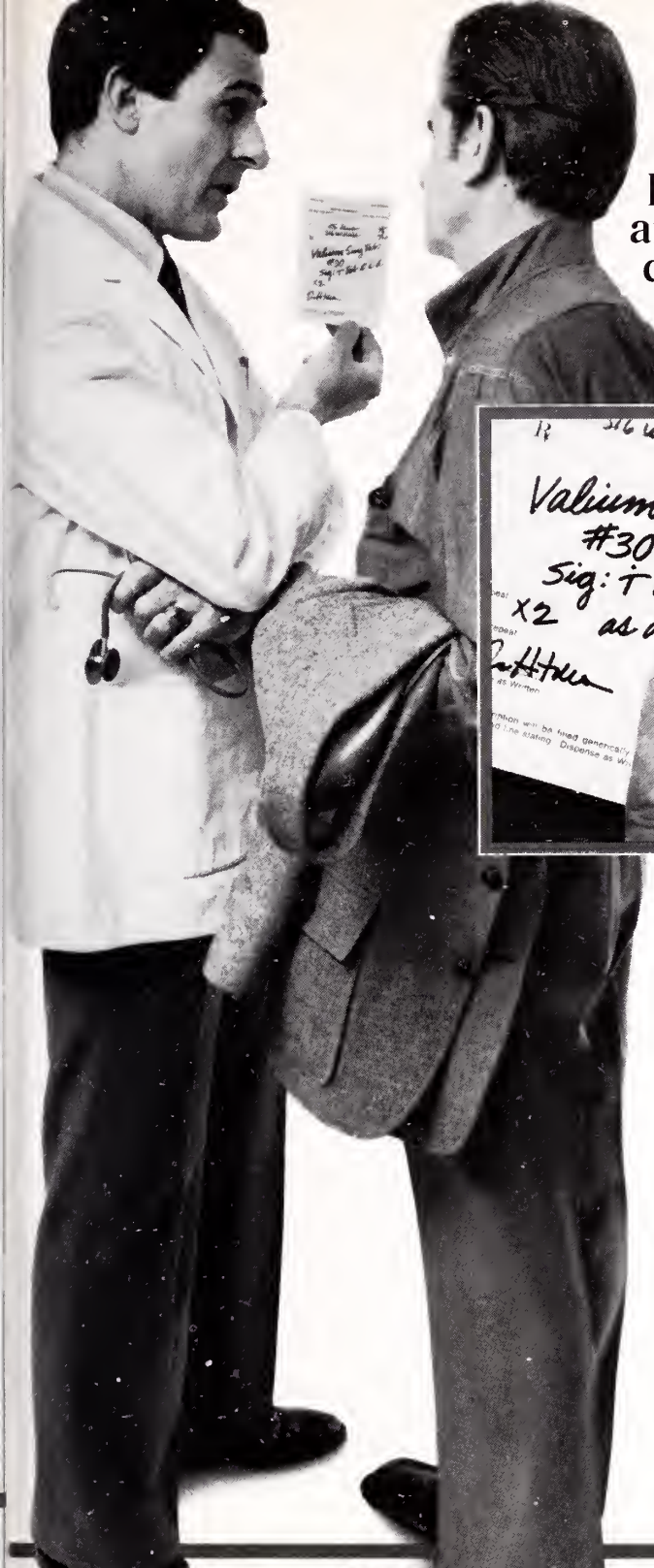
Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms, or agitation, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics,



Practical pointers on taking antianxiety medications

do's Patients should be instructed to keep to their dosage schedule exactly as prescribed. If they miss a dose, they should not try to make it up by taking two doses the next time. Ask them to contact you promptly if they experience worrisome side effects. Explain that drowsiness is a common reaction to almost all calming agents, but that it usually subsides in a few days. Urge the patient to contact you for a possible dosage adjustment if drowsiness or other reactions persist.

Just as you request a complete list of all medications the patient is taking, suggest that this list be given to any other physician treating her/him.

Like all medicines, Valium should be kept out of reach of children and young people. Old or unused medication should be discarded.

and don'ts Since drowsiness is an occasional problem, patients should be advised against driving or operating hazardous machinery until they see how the medication affects them. They should also know that tranquilizers increase the effects of alcoholic beverages, which should therefore be avoided. Also, warn patients against simultaneous use of drugs that depress the central nervous system, particularly sedative hypnotics.

Patients should be aware of the importance of not sharing their medications with friends and neighbors; they should know that what you have prescribed for them may be contraindicated for others.

2-mg, 5-mg, 10-mg scored tablets

Valium® (IV)
diazepam/Roche

An important adjunct to your treatment program for excessive psychic tension

Dosage: Individualize for maximum beneficial effect. *Adults* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions.) *Children* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.

ROCHE®

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

...itu-
...s, MAO
...itors and
...r antidepres-
...s may potentiate
...ction. Usual precautions indicated in patients
...rely depressed, or with latent depression, or with
...idal tendencies. Observe usual precautions in impaired renal or hepatic function
...t dosage to smallest effective amount in elderly and debilitated to preclude ataxia or sedation.

...Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, ...iue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, ...ntinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, ...red vision. Paradoxical reactions such as acute hyperexcited states, anxiety, ...cinations, increased muscle spasticity, insomnia, rage, sleep disturbances, ...ulation have been reported, should these occur, discontinue drug. Isolated reports ...eutropenia, jaundice, periodic blood counts and liver function tests advisable ...ng long-term therapy



CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

Brief Summary of Prescribing Information

Indications and Usage: Symptomatic relief of anxiety, tension, agitation, irritability and insomnia associated with anxiety neuroses and transient situational disturbances; anxiety associated with depressive symptoms and as a treatment of symptoms of anxiety if such symptoms are a significant feature of functional or organic disorders, particularly gastrointestinal or cardiovascular

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients on lorazepam not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g., drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation.

Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions.

Observe usual precautions with impaired renal or hepatic function.

Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component.

Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (approximately 6 times the maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatric patients requires caution and frequent monitoring for symptoms of upper G.I. disease.

Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug.

In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind that multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring of vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® (IV) for (lorazepam) Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

Wyeth Laboratories
Philadelphia, PA 19101

Copyright © 1979, Wyeth Laboratories
Div. of AHPC, N.Y., N.Y. All rights reserved

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

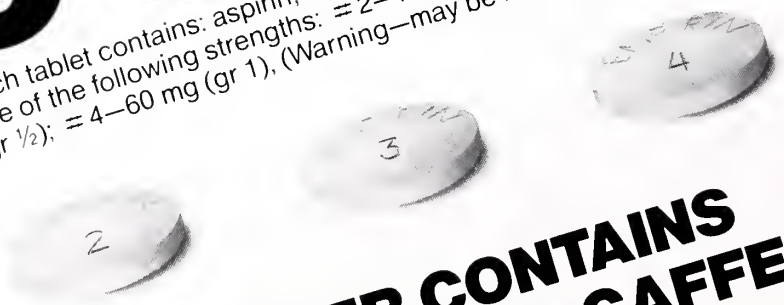
Ativan® (lorazepam)
for Anxiety

~~EMPIRIN®~~
~~COMPOUND~~
~~C CODEINE~~
IS NOW

EMPIRIN®
C CODEINE



Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: #2—15 mg (gr ¼); #3—30 mg (gr ½); #4—60 mg (gr 1), (Warning—may be habit-forming)



NO LONGER CONTAINS PHENACETIN OR CAFFEINE.

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

RX: Permanent and Total Disability

HOW often have we seen or been guilty of this scenario? A well-meaning physician will advise his patient that he (the patient) is too sick to work and should take disability from the Social Security. The doctor grabs his prescription pad and writes the pronouncement that "this patient is permanently and totally disabled."

Fine! So far so good. The patient quits his job, takes this slip of paper to the Disability Determination division of Social Security, and sits back and plans retirement.

Then surprise of surprises, he doesn't "pass" or qualify for disability. He can't get his job back nor can he find suitable employment elsewhere because of the alleged history of poor health.

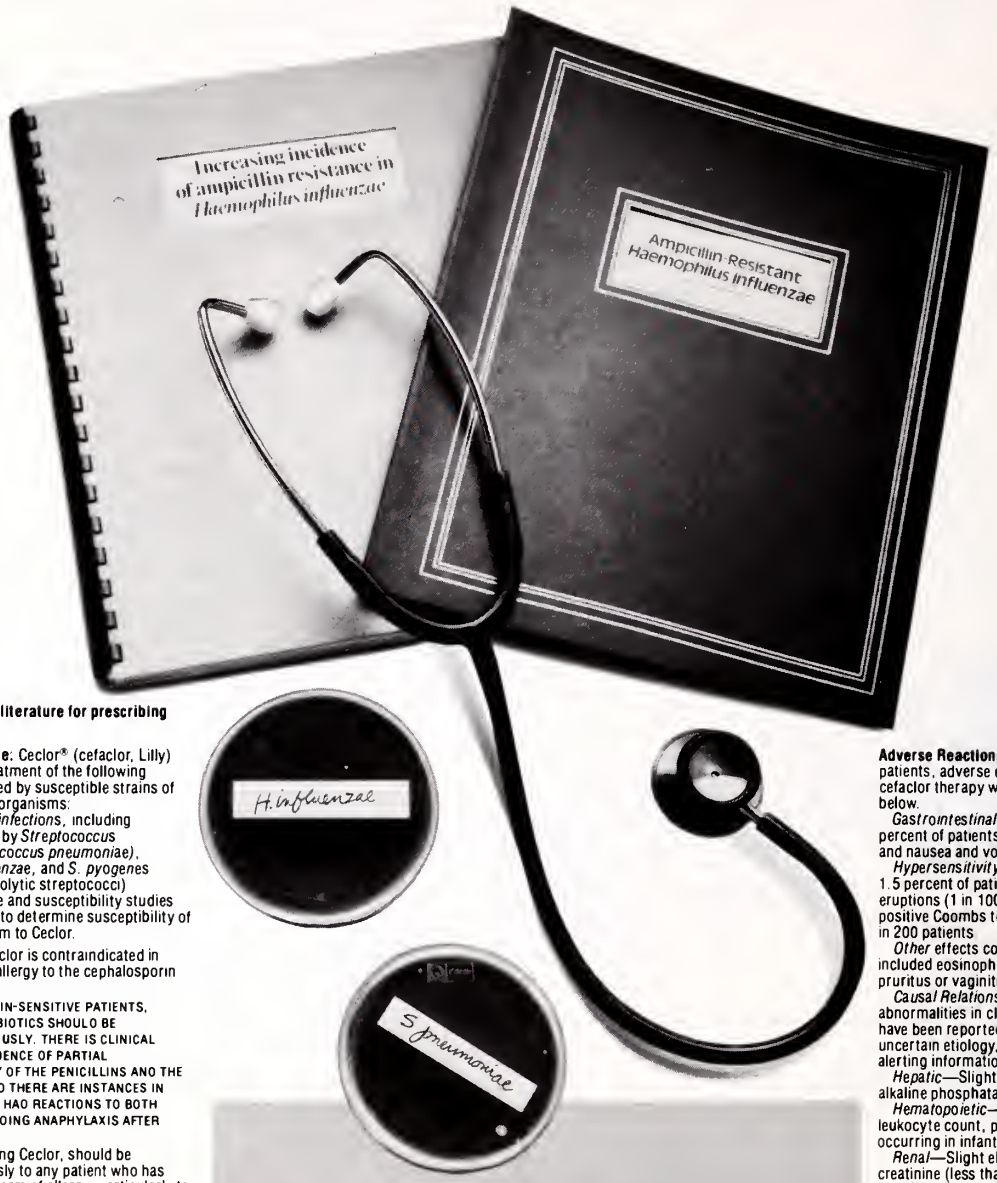
What prompted this story was a mailing I received last week from the U. S. Government entitled "Disability Evaluation Under Social Security." In this brochure the guidelines of needed criteria for disability are well outlined for each diagnosis of the multiple body systems. This becomes the bible for the board of adjudication as to what symptoms, physical signs and laboratory findings are necessary to establish disability. If the applicant does not fit these guidelines of impairment, then he is not entitled benefits.

In this brochure, the authors are quick to point out that impairment is a medical decision, but that "disability" is an administrative decision not a medical decision. In fact the brochure states rather succinctly, "The physician is neither asked nor expected to make a decision as to whether his or her patient is disabled." It is in this gray area of disability that the well-meaning physician often does a disservice to his patient by advising him to quit his job and apply for Social Security disability.

It is one thing if the doctor prepares records to substantiate diagnosis and impairment. It is quite something else if that same doctor presumes disability and gives his patient bad advice. A few minutes spent referring to this brochure could save some Kentucky workers a hardship.

MFM

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[070379R

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Lilly

000482

The Immobilized Patient

Franz U. Steinberg, M.D., Plenum Publishing Corporation, Copyright 1980, 156 pages

This book is one of five topics series in bone and mineral disorders. It advertises that people from the entire spectrum of the medical community, especially those caring for the infirmed, will welcome its presentation.

Doctor Steinberg writes a most pleasant review of present knowledge, flavoring the data with caveats from his clinical experience. Each section neatly sets forth the physiologic problems—the effects on bone metabolism, skeletal, muscle, joint and skin—that challenge and confound the medical team caring for an immobilized patient. Disguised in its easily readable style is a plethora of clinical pearls and explanations for some of the most difficult treatment problems. One comes away from reading this book with a sense of grandeur, that despite the immobilized patient's seemingly insurmountable problems, solutions are available at some point in the quest.

The physiologic milieu for both patient and physician is clarified in an almost paternal fashion. The reader may shut his book with some hope of understanding this complicated problem.

The bibliography is adequate and modern. The few illustrations are well placed and give the mind an educational vacation while reading the text.

In agreeing with this book's purpose, I would thank Steinberg for his interesting and stimulating presentation.

STEPHEN Z. SMITH, M.D.

Current Medical Diagnosis & Treatment

Marcus A. Krupp, Milton J. Chatton and Associate Authors, Lange Medical Publications, Copyright 1980, 1116 pages

The nineteenth and latest edition of this handbook type text continues the tradition of previous editions. Never meant to be encyclopedic, this book assumes the role of both a review of the state of the art and a refresher for diagnosis and treatment of medical disorders.

In view of the fact that this book is written in concise explanatory terms, very little provocative material is either presented or intended. It cannot be read leisurely and in fact is monotonous to read in sequence. More illustrations should be used not only to clarify acid base chemistry, problems in diabetes, hormonal interactions in endocrine disorders and the dynamics in cardiovascular diseases, but also to embelish the book with something other than page after page of the written word.

Surprisingly common disease problems such as hypertension, functional GI disease, headache and anxiety reactions bear relatively little space compared with less common diseases. The tendency to dwell on the more clearly delineated medical problems and avoid controversy is common with each author and probably intended.

For those out of the mainstream of medicine and those trying to relaunch their medical studies, this book is an excellent place to embark. Very few physicians voluntarily divorce themselves from medical reeducation and with this book keeping up is certainly facilitated. At $19, the more than 1000 pages are a literary and educational bargain.

STEPHEN Z. SMITH, M.D.

Contemporary Topics in Immunobiology

General Editor: M. G. Hanna, Jr., Edited by John J. Marchalonis & Nicholas Cohen, Plenum Press, Copyright 1972, 293 pages

This multi-volume series explores the burgeoning field of immunobiology from both an analytic and eclectic point of view. From the desperate state of affairs in the 1940's to the plentiful descriptions of immunologic phenomenon recently, this field has become both a panacea for those looking for answers in biological sciences and an albatross to those contending with the transient "latest" theories.

The ninth volume in this series bears the somewhat personal title of Self/Non-Self Discrimination. From such a probing entrance, one enters a book fraught with complicated, data rich, scientific papers compilated by the editors and intended to review the state of the art from the basic biologists point-of-view. Animal models are used for illustration and the medically oriented reader will need to search for relevance to his data base.

We review this book in our Journal with the intention of making its presence known. To those who find it germane to their interests it is readable, though admittedly a challenge, without recent basic science foundation in immunobiology. For the research that it spawns and the clarification it manifests, it belongs in the medical library.

STEPHEN Z. SMITH, M.D.

Sensory Functions of the Skin of Humans

Edited by Dan R. Kenshalo, Plenum Press, Copyright 1979, 439 pages

Edited by Doctor Kenshalo, this compilation of an August, 1978 meeting formalizes in book form the recent developments in sensory function physiology. The sensory system is a complicated montage of nerves, sensory organs and the cutaneous environment in which they exist.

This reference text will be useful to the researcher in many fields of investigation. To the dilatante there seems to be no launching point. There is definitely a slant to the reader who is armed with prior knowledge of recent developments and patterns of experimentation. Data are thrust at the reader in a bewildering array of forms, from bar graphs to algorithms. Definitions are omitted for the most part, I am sure, to lighten the word load for the informed. Each bibliography is complete and up to date.

The text is a medical library must. The whirlwind of sensory system experimentation may make this compilation a bystander, but for now and for the adequately literate, if not expert reader, it is useful.

STEPHEN Z. SMITH, M.D.

Human Nutrition—A Comprehensive Treatise

Edited by Roslyn B. Alfrin-Slater and David Kritchevsky, Plenum Press, Copyright 1980, 424 pages

Micronutrients in Human Nutrition (a comprehensive treatise), edited by Doctors Alfrin-Slater and Kritchevsky, is an excellent complete presentation of the function of vitamins and trace elements in our internal milieu.

Each vitamin is discussed from its availability, biochemistry, metabolism, function as coenzymes, excretions and interaction with other chemicals. The trace elements including iron are dealt with less vigorously but they are emphatically given their due in terms of human requirements. The chapters on interactions with oral contraceptives and changing nutrition of the elderly are appendaged but nevertheless interesting.

Throughout the book the illustrations are well placed, clearly presented and very informative. Diagrams of metabolic pathways guide the reader through the text. We are spared the onerous pressures of many tables which usually take census of nutritional requirements and measurements.

Bibliographies lack consistency of form are so up to date that all is forgiven.

This part of the Human Nutrition Treatise is both informative, interesting and encyclopedic.

STEPHEN Z. SMITH, M.D.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Information. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Application for Scientific Exhibits

1980 Annual Meeting — **Kentucky Medical Association**

Ramada Inn/Bluegrass Convention Center — **Louisville, Kentucky** — **September 23, 24, 25**

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before July 1, 1980.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category 4 credit.

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____

   Address _____

   Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
   (The draped booth has 4′ side walls. This footage should not be included in backwall footage required.)
   SHELF DESIRED? _____ (Shelf is 2′ deep × width of backwall footage)
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____
7. Has this exhibit been displayed before? If so, when & where? _____
8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

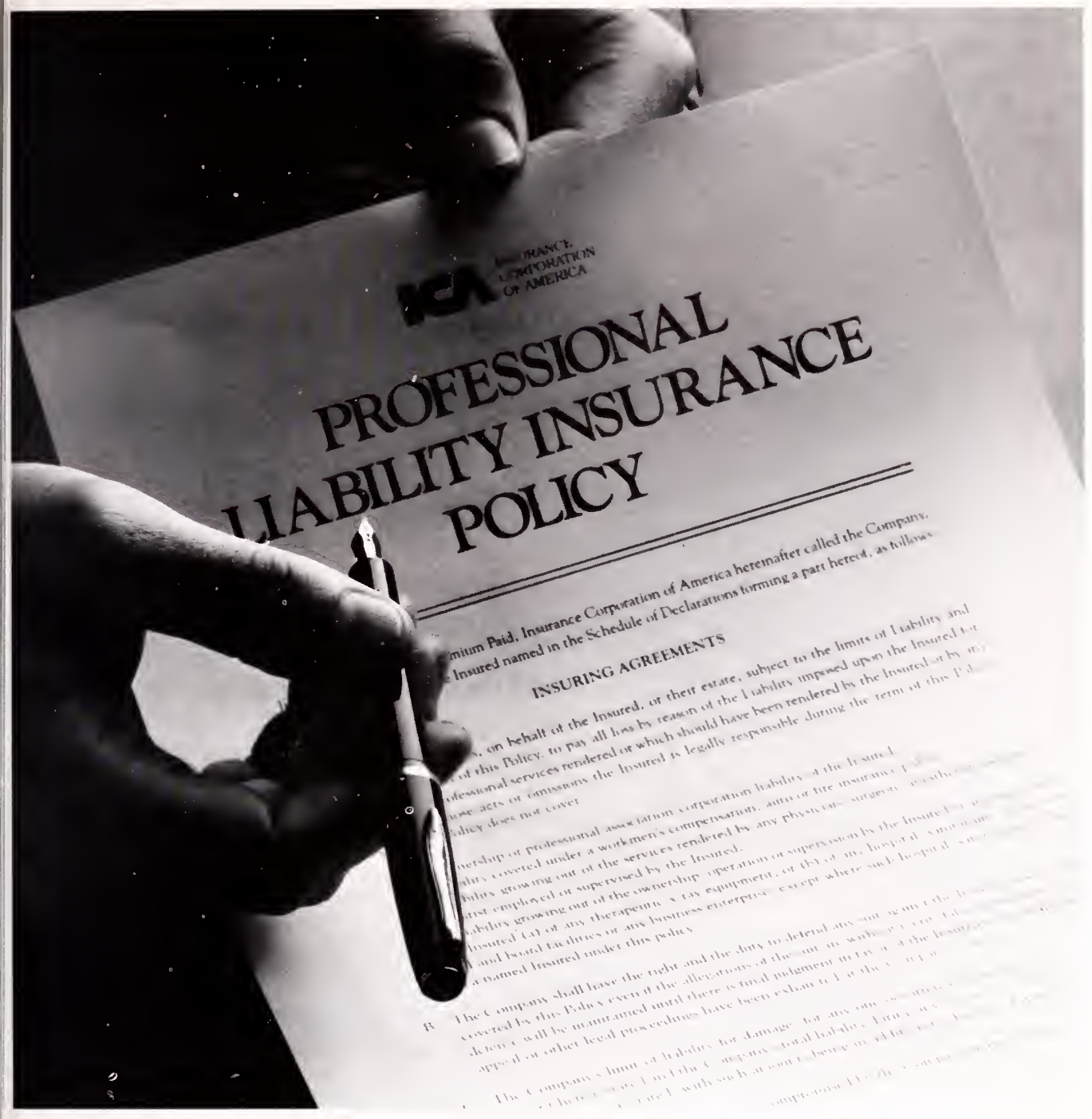
Date _____ _____

Signature of Applicant

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

- KMA provides, without cost to the exhibitor, simple shelves, bracket lights and a title sign.
- Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 704 West Main Street, Louisville, Kentucky 40202
- Transportation and erection costs are the responsibility of the exhibitor.
- Exhibit must be attended during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.
- Equipment which will create noise should not be used during the general sessions and, at other times, should be controlled by head or earphones or a muffling device.



PUT A CONTRACT OUT ON FRIVOLOUS CLAIMS.

Frivolous claims can be a nightmare. Especially if your malpractice insurance company doesn't stand by you. And unfortunately, all too many don't.

For instance, most malpractice insurance policies give you no say in whether to fight or settle a claim. And if you do have a say, you can be hit with a costly penalty for going to court. Another thing. Many companies don't pay all legal expenses. And most companies seldom use lawyers to process cases. Claims are often handled only by claims adjusters.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working for doctors. So we know the strong coverage and knowledgeable service physicians need from their liability insurance. And since we specialize in this one field, we can offer a superior policy for a realistic premium. Premiums based on actual costs in your state.

So select the policy with the protection you need. Put a contract out on frivolous claims. For more information contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas Phone 1-800-231-2615

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

EVERYBODY NEEDS A BACKUP!

In sports there are subs; most businessmen have assistants; corporations have vice-presidents.
As an independent professional there's not always a person to do this job for you.
We've been backing up professionals in Kentucky since 1939 with disability insurance protection when they are sick or when they have had an accident.

WE WOULD LIKE TO BE YOUR BACK-UP!

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

In G.I. therapy



Adjunctive Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

ease consult complete prescribing informa-n, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

ntraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or dinium Bromide

rnings: Caution patients about possible combined effects with alcohol and other CNS pressants, and against hazardous occupations quiring complete mental alertness (*e.g.*, operation machinery, driving). Physical and psychological dependence rarely reported on recommended es, but use caution in administering Librium® ordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

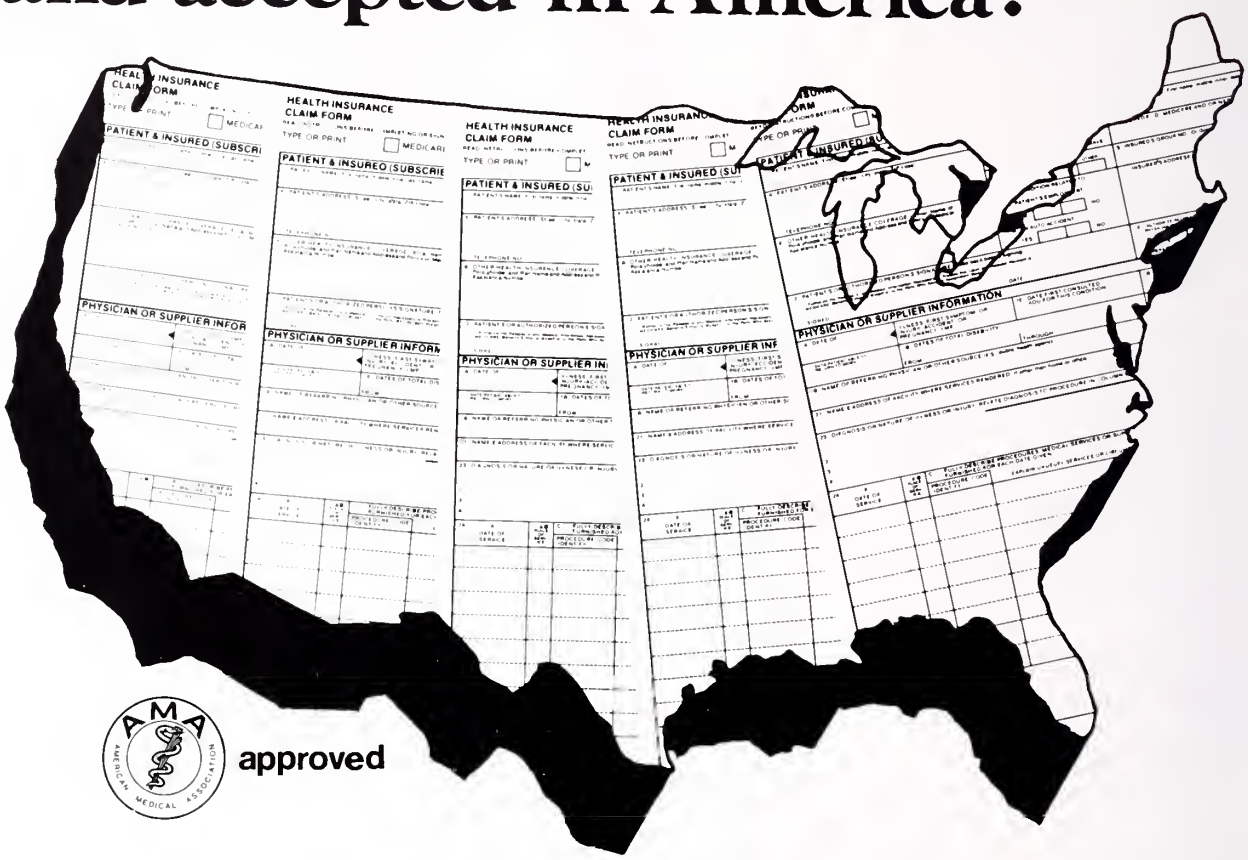
Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

ROCHE®

Roche Products, Inc.
Manati, Puerto Rico 00701

This insurance claim form is the most widely used and accepted in America.



Are you using it?

If you're not using the Official AMA Uniform Health Insurance Claim Form, chances are you should be. It is accepted by all states for Medicare, many states for Medicaid, and almost all commercial carriers and Blue Shield Plans.

Developed by the AMA in cooperation with carriers, government agencies, and other groups, it is the most current and universally used reporting form available.

And it can save you and your staff a lot of time. You use just one form—one format—for most of your reporting instead of having to decipher a bunch of different ones.

Be sure you get the *Official* AMA Health Insurance Claim Form; mail this order form with your payment today.

ORDERING INFORMATION

Type of Form	Quantity*	Price per thousand
( ) Single Form, OP-407 (In pads of one hundred)	1,000-25,000	$23.10
( ) Snap-out Form, OP-408 (Original and carbon)	1,000-25,000	$35.20
( ) Continuous Computer Form, OP-409 (Original and one carbon)	1,000-25,000	$36.00
	TOTAL	

*NOTE: Larger quantities available at special rates. Write to: Order Handling, AMA, 535 N. Dearborn, Chicago IL 60610

To order: Indicate type of form and quantity desired, compute total cost, and send order, accompanied by check or money order (payable to the American Medical Association), to the address below:

Order Department
American Medical Association
P. O. Box 821
Monroe, Wisconsin 53566

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

10th Annual
KMA EMERGENCY MEDICAL CARE SEMINAR

&

5th Annual
DEPARTMENT FOR HUMAN RESOURCES EMERGENCY MEDICAL SERVICES CONFERENCE

JUNE 18 & 19, 1980

Executive West Motor Hotel — Louisville, Kentucky



Two Guest Speakers Will Highlight Emergency Medical Care Seminar

George Ballou, M.D., team physician for the Cincinnati Bengals and W. Grady Stumbo, M.D., Secretary of the Department for Human Resources for Kentucky, will be the featured speakers at the 10th Annual KMA Emergency Medical Care Seminar and the Fifth Annual Commonwealth of Kentucky Emergency Medical Services Conference, June 18 and 19, Executive West Hotel, Louisville.

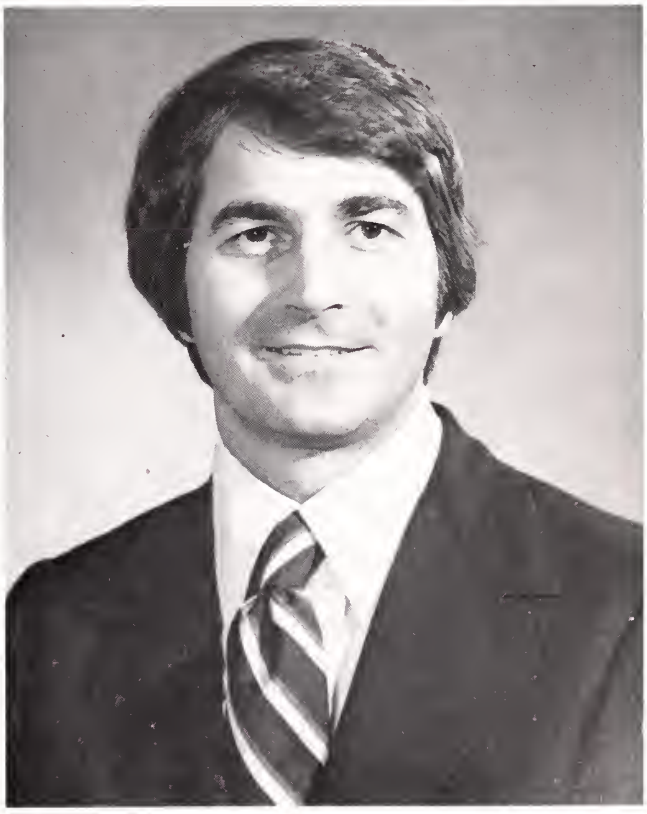
Doctor Ballou has been team physician for the Bengals since the team was formed 12 years ago. He has also been team physician for the Cincinnati Reds for the past 27 years. He is a graduate of the University of Louisville School of Medicine. Doctor Ballou will be discussing sport's injuries during his presentation as luncheon speaker on the 18th.

Doctor Stumbo is a 1971 graduate of the University of Kentucky College of Medicine. He is a clinical faculty member of the U of K College of Medicine and the U of L School of Medicine. He was appointed by Governor John Y. Brown, Jr. in 1979 as Secretary of the Department for Human Resources. Doctor Stumbo will be the luncheon speaker on the 19th and will be discussing the future funding of the Emergency Medical Services systems in Kentucky.

Registration for the total program is $15 per day which includes lunch on both days and all supplementary material. CME credit will be given by AMA, ACEP, KAFP and EDNA. The Red Cross will again hold workshops in cardiopulmonary resuscitation (CPR), and there will be special interest groups meeting.



Doctor Ballou



Doctor Stumbo

Nominations Being Accepted For Three Annual KMA Awards

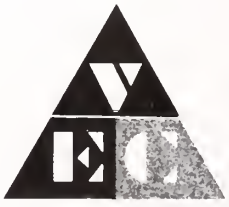
Nominations are being accepted for three awards which are presented each year at the KMA Annual Meeting to outstanding physicians and lay people.

Nominees for the Educational Achievement Award are chosen from members of the Commonwealth who have made a significant achievement in medical or medically related education in areas of research, clinical application of medical practice and/or patient education. Nominations must be received in the Headquarters Office by June 1. Recipients are chosen by the Medical Education Committee.

The Distinguished Service Award is presented each year to a physician in the state who has contributed to organized medicine or individual medical service, community health or civic betterment and medical research or distinguished voluntary military service. The nominee may qualify on any one or a combination of these points.

The Kentucky Medical Association Award is presented to an outstanding lay person in honor of his or her outstanding accomplishments in the field of public health and/or medical care. July 15 is the deadline for receiving nominations for the Distinguished Service Award and the Kentucky Medical Association Award. Recipients will be chosen by the Awards Committee.

Nominee material should include background and historical information about the nominee as well as justification for the nomination.



VAN ZANDT, EMRICH & CARY

INCORPORATED

WE SPECIALIZE

IN

INSURANCE AND FINANCIAL PLANNING FOR PHYSICIANS

JO. M. VAN ZANDT
CLAUD I. EMRICH, JR.
ARTHUR CARY, CPCU
ROBERT C. EMRICH
LUKE WHITTAKER
J. STEPHEN WATERFILL
PAUL G. FRANZ, CPCU

Insurance Professionals with the Personal Touch





Starks Bldg., Louisville, Ky. 40202, (502) 585-2351

Uncommon Problems in the Human Life Cycle



SPECIAL FEATURES

- Scientific Session Featuring 24 Nationally Recognized Speakers
- Technical & Scientific Exhibits
- 21 Specialty Society Meetings
- Presentation of KMA Awards
- President's Luncheon
- Meetings of House of Delegates
- KEMPAC Seminar

KMA Annual Meeting, Sept. 23-25, 1980, Ramada Inn/Bluegrass Convention Center, Louisville

Report on the 1980 Session of The Kentucky General Assembly

Nearly 1,600 bills and resolutions were introduced during the 60-day session of the Kentucky General Assembly, which adjourned on April 15. Many of these proposals related to medicine and health and were of interest to KMA.

All proposals were carefully screened and studied by KMA's Legal Counsel, the Chairman and members of the Committee on State Legislative Activities, the Quick Action Committee and staff. Of the 1,600 bills and resolutions introduced, KMA's interest focused on 143. The Quick Action Committee met almost weekly during the session. The full Committee on State Legislative Activities also met to review legislation and develop strategy and positions.

KEY LEGISLATIVE PROPOSALS

Brain Death

The 1979 session of the House of Delegates directed KMA to work to revise the Anatomical Gift Act to include language recognizing the concept of brain death. Guidelines were established by the House for the statement of this definition. In the course of the legislative process, this language had to be modified in light of practical political considerations. Unfortunately, this proposal, because of its tie in with the Anatomical Gift Act, became associated with issues related, in the public eye, to abortion and organ donation. This created a negative atmosphere for the legislation, and the bill did not pass. However, the introduction of the bill was an affirmative first step toward the revision of the statute, and the proposal will be supported through the Interim Committee System and reintroduced in the next session of the General Assembly in 1982.

Physicians' Assistants

KMA strongly supported a bill to certify Physicians' Assistants. This proposal saw early and continuously-heavy activity throughout the session. There were a number of attempts to amend the original bill, which very closely followed the guidelines established by the House of Delegates. Several groups opposed the bill or successfully sponsored amendments that made it exclusionary for certain physicians, all contrary to House directives. In its final form, KMA opposed the bill because of its discrimination against some medical specialties. The fact that it did not pass is considered in keeping with House of Delegates policy.

Eye Diseases and Drugs

Senate Bill 273 called for referral of optometric patients with suspected eye diseases to a physician. A companion resolution, SCR 45, called for a study of the use of drugs by optometrists. Both these proposals were intended to create scrutiny of the results of the 1978 Optometric Drug Law, which allowed use of diagnostic pharmaceutical agents by optometrists. Neither SB 273 or SCR 45 passed.

EXECUTIVE BUDGET

The Governor's original budget was not introduced until fairly late in the session. KMA's major interest focused on appropriations for the Department for Human Resources. The House reduced Medicaid funds by $6 million, but later concurred with Senate amendments restoring approximately $4 million to the DHR Medicaid Program. Some observors conclude this will result in approximately a $2 million reduction in State contributions with an overall reduction of $6 million because of loss of recriprocal Federal matching funds.

BILLS KMA SUPPORTED THAT PASSED

SB 46 provides in-hospital health insurance coverage for newborns.

SB 60 exempts from liability employees of boards of education who render care at the scene of an emergency.

SB 135 prohibits issuance of a driver's license to persons requiring corrective compound lens systems.

SB 205 makes Medicaid the payor of last resort for those Medicaid recipients that also have private health insurance coverage.

SB 340 revises the Kentucky Certificate of Need law. Physicians' offices are specifically exempted from the certificate of need process.

SCR 8 calls for a study of the feasibility of helicopter ambulance service.

SCR 23 commends the Kentucky Voluntary Effort for its work in reducing health costs and recognizes its role as a consultant for future health legislation.

HB 137 establishes an Office of Professional Education Preparation Program in the Council on Higher Education and requires public schools of medicine, dentistry and law to publish admissions criteria.

HB 150 permits residencies in institutions serving a medically-underserved community and requires that

not more than 25% of such persons funded shall be permitted to serve in underserved areas of Jefferson and Fayette Counties.

HB 158 allows removal of corneas from decedents deemed "coroner's cases."

HB 179 requires minimum standards for Medicare Supplemental Insurance.

HB 293 requires immunization of children unless parents object on religious grounds.

BILLS SUPPORTED BY KMA THAT FAILED TO PASS

SB 136 would have established a Medical Review Board for purposes of drivers' licensing determinations.

HB 127 would have required parents or guardians of every female child to have the child tested for rubella and rubeola after the child reaches age 11 and immunized if indicated by the test.

HB 832 would have amended current statutes to include and allow a determination of "brain death."

BILLS KMA OPPOSED THAT PASSED

HB 491 provides for chiropractic coverage under health insurance, but such coverage is to be "available and optional" with individuals selecting the coverage paying an additional premium.

HB 624 provides for the legalization, sale and use of Laetrile in terminally ill patients.

BILLS KMA OPPOSED THAT FAILED TO PASS

SB 176 would have mandated insurance coverage for treatment of mental disorders by "mental health professionals."

HB 371 would have mandated provisions for podiatrists for hospital staff membership.

HB 374 would have provided coverage under health insurance for social workers.

HB 709 dealt with fees charged for replacement of blood and blood products.

OTHER LEGISLATION

Passed

SB 40 provides for the Commissioner of Insurance to prescribe a Uniform Claim Form to be used by all insurors.

SB 53 provides for equalization of all Medicaid payments to physicians up to the maximum Federal levels.

SB 233 revises the membership of the Kentucky Cancer Commission.

SB 357 changes minimum benefits under group health insurance contracts for treatment of alcoholism—coverage optional.

Failed to Pass

SB 196 would have revised the legal definition of visual impairment.

SB 310 would have provided for changes in the Kentucky Generic Drug Program including abolishing the current formulary.

HB 538 Present regulations forbid payment for optometric services for patients over 21 years of age. HB 538 would have mandated coverage for medical recipients of all ages for services within the lawful scope of optometry.

HB 920 would have defined "visually impaired" to mean a medically or optometrically-diagnosed condition of the eye which for the individual results in handicap to employment.

HR 22 and **HR 109** would have provided for studies of the KMAP to include physician participation.

LEGISLATIVE WRAP-UP

A brief description of the major bills followed by KMA is included for your records. We express our appreciation to the members of the KMA Quick Action Committee, members of the KMA Committee on State Legislative Activities, Legislative Key Men, and all KMA and KEMPAC members who worked so diligently during the 1980 session of the Kentucky General Assembly.

Carl Cooper, Jr., M.D., Chairman
KMA Committee on State Legislative Activities

KMA Washington Dinner

The annual KMA Washington Dinner will be held on June 24-25 at the Capital Hilton Hotel. There will be a briefing by the AMA Washington Office on June 24, with Congressional visitations on June 25, concluding with a banquet that evening. Invitations are being sent from the Headquarters office.

1980 Kentucky General Assembly Bills Having Health or Medical Interest*

Bill	Description	Action
	ABORTION	
SB 336	Change Statute of Limitations from one to five years-actions of redress for injuries from abortion procedures	Died Senate
SB 337	Prohibit denial of recovery in civil actions on grounds that	Died Senate
HB 934	"unborn human being" is not "human being" in common law	Died House
HB 90	Extensive revision to abortion law	Died House
HB 125	Prohibit use of public funds for abortions	Law
HB 277	Permit fiscal courts to regulate abortions	Died House
HB 315	Require abortions performed after first trimester to be in duly licensed hospital	Law
HB 364	Prohibit publicly-owned hospitals and health facilities from performing abortions	Law
HB 927	Kentucky Abortion Act of 1980	Died Senate
	ADMINISTRATIVE/LEGAL	
SB 162	Administrative Regulations Review Subcommittee	Died Senate
SB 367	Declare legislative intent for thorough and accurate examination by a physician in determination of patient disability	Died Senate
SB 378	Reporting of gunshot and stab wounds by examining physician	Died House
HB 65	Abolish Administrative Regulations Review Subcommittee	Died Senate
HB 123	Require Administrative Regulations Review Subcommittee to transmit regulations to appropriate legislative committee	Law
HB 145	Determine physical and mental fitness of Governor	Died House
HB 158	Organ Removal Authority	Law
HB 238	Sunset Legislation for Licensing Boards	Died Senate
HB 239	Legislative intent for occupational regulation	Died Senate
HB 249	Care for criminally insane	Died Senate
HB 366	Exempt from liability in civil damages CPR certificate holders rendering emergency care	Died House
SB 60	Exclude school personnel having first aid training or CPR from liability in emergency care	Died House
HB 844	Educational requirements of Licensing board members	Died Senate
HB 849	Sovereign immunity of UKMC employees or agents waived for medical malpractice suits	Died Senate
HB 893	Authorization for release of medical information in civil actions	Died House
HB 931	Executive Budget	Law
HR 110	Review and Evaluation of Occupational Licensing Boards	Died House
	AMBULANCE/EMERGENCY SERVICES	
SB 45	Creation of local Emergency Ambulance Service Districts	Law
SB 66	Requirements for Ambulance Services	Law

**If you desire information on any legislation not included in this summary, contact the KMA Headquarters Office.*

SJR 8	Study Feasibility of helicopter ambulance service	Law
HB 362	Restrict certification of EMT's to those not convicted of a felony	Died House
HB 767	Permit ambulances to make emergency runs without siren if patient's condition demands	Law
HR 96	Study by EKHSA for emergency medical center in northern Fayette Co.	Died House

CHILDREN

SB 46	Optional health insurance in-hospital coverage for newborns	Law
HB 127	Immunization of female children after age 11 for Rubella and Rubeola	Died House
HB 293	Immunization of children unless parents object on religious grounds	Law

DRUGS/HEALTH CARE PRODUCTS

SB 238	Bureau of Narcotics and Drug Enforcement	Died Senate
SB 283	Inhalation of Harmful Substances	Died House
SB 310	Generic Drugs	Died Senate
SCR 45	Direct LRC to study administration of diagnostic pharmaceutical agents by non-medical practitioners	Died Senate
HB 53	Prohibit sale or distribution of glue or paint that causes intoxication or stupefaction	Law
HB 64	Schedule III controlled substances—penalty for possession	Died House
HB 126	Marijuana—penalties for planting and harvesting	Died Senate
HB 141	Possession and sale of marijuana	Vetoed
HB 217	Provide space on drivers' licenses for listing medications being used	Died House
HB 221	Admissible as evidence reputation of defendant trafficking in controlled substances	Died House
HB 224	Penalties for trafficking in marijuana	Died House
HB 419	Drug Paraphernalia illegal	Died House
HB 624	Legalization of sale and distribution of laetrile	Law
HB 709	Blood and blood products	Died House
HB 795	Exclude glasses, contacts, syringes, oxygen, etc., from sales tax	Died House

HAZARDOUS/NUCLEAR/SOLID WASTES

SB 47	Nuclear Waste Site Control Policy	Died House
SB 266	Spills of hazardous substances and abandoned hazardous waste sites	Law
SB 267	Develop statewide plan for hazardous wastes	Law
SB 333	Redefine hazardous and solid wastes	Law
SCR 3	Effects of Nuclear Power Plants	Died Senate
HB 98	Nuclear Waste Disposal Facilities	Law
HB 112	Transportation of Hazardous Wastes	Died House
HB 113	Transportation of Nuclear Wastes	Died House
HB 114	Require DHR to monitor radiation discharged from nuclear power plants into rivers	Law
HB 701	Hazardous Waste Storage	Died House
HB 702	Hazardous Waste Management	Law
HB 703	Hazardous Waste—demonstration project requirement	Law
HCR 4	Advisory Commission on Nuclear Issues	Law
HCR 57	Federal funding for decommissioning of the Nuclear Waste Disposal Site	Law

HEALTH

SB 135	Operators Licenses—compound lense system	Law
SB 136	Medical Review Boards—Drivers' License Applicants	Died House
SB 142	Physicals for school personnel conducted by county health departments	Law

SB 183	Prohibit Boards of Health from charging for services rendered	Died Senate
SB 196	Define visually impaired—medically diagnosed condition of the eye	Died House
SB 214	Immediate treatment for public alcoholics	Law
HB 755	Immediate treatment for public alcoholics	Died House
SB 233	Revises membership of Kentucky Cancer Commission	Law
SB 312	Add veterinarian and lay member to county health boards	Died Senate
SB 329	Seizures—persons applying for operators license to supply certificate they have been free of seizures for 90 days prior to application	Law
SB 340	Kentucky Certificate of Need Law amendments	Law
SB 345	Health services organization fund	Died Senate
SCR 23	Kentucky Voluntary Effort Cost Containment	Law
HB 455	Dental Hygienists on Boards of Health	Died Senate
HB 564	Medical care for prisoners	Died House
HB 600	Decontamination of Bird Roosts	Law
HB 655	Visually impaired—medically diagnosed condition of eye	Died House
HB 832	Brain Death	Died House
HB 906	Hospitalization of mentally ill	Died House
HB 944	Certificate of Need Board	Died House

INSURANCE

SB 40	Uniform Claim Form	Law
HB 339	Uniform Claim Form	Died House
SB 46	Health insurance for hospital nursery care	Law
SB 69	Workers' Compensation—elimination of hearing officers	Died Senate
SB 86	Health insurance coverage for social workers	Died Senate
SB 176	Mandate health insurance payments for mental health professionals	Died Senate
SB 205	Grant DHR right to recover benefits paid to recipients having third party coverage	Law
SB 357	Increase eligibility to receive alcoholism benefits	Law
HB 374	Mandate health insurance payments for clinical social workers	Died Senate
HB 402	Optional insurance benefits for home health care	Law
HB 491	Optional insurance benefits for chiropractic care	Law
HB 532	Workers' Compensation	Law
HB 556	Mandate health insurance payments for mental health professionals	Died Senate
HB 951	Increase eligibility to receive alcoholism benefits	Died House
HR 88	Examine alternatives for state employees health insurance	Law

MEDICAID/MEDICARE

SB 53	Equalization of Medicaid payments to physicians if allowable under	Law
HB 338	Federal law and regulation	Died House
SB 101	Relates to primary medical care and redefines medically indigent	Died Senate
SB 185	Redefine medically indigent; authorizes DHR to assist non-profit primary care corporations in care for medically indigent	Died Senate
SB 205	Grant DHR right to recover benefits paid to recipients having 3rd party coverage	Law
SB 226	Appropriate $5.5 million to U of L for medical	Died Senate
HB 618	care to indigents	Died House
HB 179	Establishes minimum standards for Medicare Supplemental policies	Law
HB 214	Notify Medicaid recipients of availability of dentures	Died Senate
HB 215	Notify Medicaid recipients of availability of dentures (includes denturists)	Died House

HB 538	Require Medicaid to pay for services rendered by optometrists within the lawful scope of optometry if such services are paid to physicians	Vetoed
HB 777	Require Medicaid reimbursement to physicians and nurse practitioners in public health departments	Died Senate
HCR 22	Direct study of physicians in Medicaid	Died House
HR 109	Study the Medical Assistant Program	Died Senate
	MEDICAL SCHOOLS/CURRICULUM	
HB 136	Allocation by congressional districts of enrollment in medical schools	Died House
HB 137	Medical Schools public admissions criteria	Law
HB 139	Medical schools—change "general" to "family" in residency programs outside Jefferson County	Died House
HB 150	Medical Residency Training—1/3 outside Jefferson and Fayette Counties	Law
	OCCUPATIONS & PROFESSIONS	
SB 64	Dental Practice Act	Died Senate
SB 114	Certification of Physicians' Assistants	Died House
SB 193	Kentucky Dental Technology Act	Died House
SB 264	Dental Assistants	Died Senate
SB 273	Require optometrist to refer patients with eye diseases to physicians	Died Senate
SB 324	Non-pharmacists dispensing drugs in primary care centers	Died Senate
SB 342	Grant Board of Pharmacy enforcement and inspection powers	Died House
HB 155	Licensure of Physical Therapists	Law
HB 371	Hospital staff privileges for podiatrists	Died House
HB 403	Social Service Aides	Died House
HB 541	Board of Licensure for Denturists	Died House
HB 548	Housekeeping changes—Board of Psychologists	Died Senate
HB 671	Pharmacy Act	Died Senate
HB 842	Brain Death	Died House
HB 920	Visually impaired to mean medically or optometrically diagnosed condition of eye	Died Senate

Digest of Board of Trustees Meeting

The KMA Board of Trustees met in regular session on April 2-3, 1980, in the KMA Headquarters Office in Louisville. Routine reports were given by the President, Secretary-Treasurer, Senior Delegate to AMA, Chairman of the Committee on State Legislative Activities and Secretary of the Board of Medical Licensure.

Ballard W. Cassady, M.D., Pikeville, Chairman of the KMA Budget Committee, was in attendance to review the proposed Budget for the 1980-81 fiscal year. Following his presentation, the Budget was adopted as proposed. President Howell introduced Mrs. Barbara Cox, President-Elect of the Auxiliary to KMA, to present AMA-ERF checks to representatives of the two medical schools. Mrs. Cox presented a check in the amount of $13,509.11 to Donald R. Kmetz, M.D. for the University of Louisville and a check in the amount of $4,140.58 to D. Kay Clawson, M.D. for the University of Kentucky.

Lawrence Guzzardi, M.D., Lexington, reviewed the AMA Jail Project and sought KMA's participation in the project at the state level. The discussion concluded with the Board members asking Doctor Guzzardi to prepare a document outlining more details of the project which they could review before making a decision.

The Board considered several matters referred by the Executive Committee including indicated action on a matter involving the threat of a lawsuit against KMA; investigation of association liability coverage; and acceptance of the Quarterly Report of the Committee on Continuing Medical Education.

The Board selected names for submission to several councils, committees and boards, including the HSA West Board, HSA West Appropriateness Review Committee, SHCC Board, State Board of Medical Licensure, Medical Laboratory Advisory Committee and Rural Kentucky Medical Scholarship Fund Board of Directors.

The Chairman of the Ad Hoc Committee on Medical Ethics, J. Campbell Cantrill, M.D., was also in attendance to present the report his committee had drafted following several meetings and an open hearing on the subject of the AMA's Principles of Medical Ethics. The Board accepted the Ad Hoc Committee's report and asked that it be submitted to the AMA for consideration. A Resolution concerning blood banks was also adopted by the Board with a request that it be submitted to the AMA House of Delegates.

Earl P. Oliver, M.D., Chairman of the Committee on Medical Insurance and Prepayment Plans, submitted five recommendations for which the committee was seeking Board approval. They were: 1) Recognition of the committee as a liaison between the KMA Board and third-party health insurance carriers; 2) Reappointment of the same committee members for 1981, at which



Mrs. Everett Rush, left, co-chairperson for the AMA-ERF Fund and Mrs. Warren Cox, President-Elect of the KMA Auxiliary, presented a check for $4,140 to the Dean of the University of Kentucky College of Medicine, D. Kay Clawson, M.D.



A check for $13,509 was presented by Mrs. Rush and Mrs. Cox to Donald R. Kmetz, M.D., professor of pediatrics at the University of Louisville School of Medicine.

time a rotational system will be implemented; 3) Referral to the Committee on Constitution and Bylaws the opinion that KMA members or staff should not be prohibited from serving coterminously on the KMA Board and the boards of third-party health insurance carriers in an ex-officio capacity; 4) Allocation of funds to mail a pamphlet on health insurance; and 5) Establishment of a speaker's bureau to provide speakers to various communities on the subject of Medicare.

The Board voted to accept the recommendation of the Executive Committee that a Resolution be submitted to the House in September, 1980, endorsing PICO's proposal to market other lines of insurance in Kentucky. A Resolution was also adopted directing the KMA Secretary to vote KMA's stock in the Kentucky Medical Insurance Company by submitting the names of nine physicians selected by the KMA Board for appointment to the KMIC Board.

The Board was provided with detailed information on actions of the Kentucky General Assembly, and discussed S.B. 53, Equalization of Medicaid Payments, and actions taken as a result of the 1979 Report of the Committee on Medicare and Other Governmental Medical Programs. It was noted that the Officers of KMA have been meeting with the Secretary for Human Resources, W. Grady Stumbo, M.D., and appropriate lines of communication seem well established.

The next session of the Board was scheduled for August 6-7, 1980.

How's Your Cost Consciousness?

MAY—Whenever possible order intravenous fluids, particularly hyperalimentation fluids, in advance. Change the orders only as an emergency since reconstitution of these fluids cannot be performed. They must be discarded and new fluids prepared.

Specify that an apparatus, when discontinued, be removed from the room when no longer needed. Such items as gastric suction, oxygen, hypothermia blankets, suction apparatus, etc., will generate a charge when sitting in a patient's room even if not in use.

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

George Sandbach Beard	Hopkinville
Garry Neil Binegar	Owensboro
Joseph Wendell Blevins	Louisville
John Harold Burke	Lexington
Robert E. Buten	Newport
P. Raphael Caffrey	Lexington
Peggy Ann Domstad	Lexington
Kenneth Milton Eblen	Henderson
James Centre King	Lexington
Robert C. Lam	Lexington
Leslie William Langley	Elizabethtown
Edgar A. Lopez-Suescum	Louisville
Bruce Allan Lucas	Lexington
Gangadhar L. Maddiwar	Martin
Martin Hugh Max	Louisville
Samuel Gault McCaskill	Murray
John Anthony Naber	Newport
Lakshmi R. Natarajan	Lexington
Maurice J. Oakley	Ashland
Philip E. Podruch	Louisville
Mark Berger Ravin	Lexington
Rafael C. Sanchez	Lexington
Ronald Eugene Taylor	Greenville
William Joseph Temple	Fort Mitchell
Andreas Eimar T. Thomsen	Mount Vernon
Robert R. Wahl	Prospect
Donald Lee Wakefield	Lexington
Cornelia B. Wilbur	Lexington
James A. Zalla	Florence
John Victor Zeok	Lexington

Winners of the 1979 fall Kentucky Medical Golf Tournament have been announced.

Carmine Scalzetti, M.D., of Louisville, won the low gross and Paul H. Webb, DMD, of Louisville, won the low net.

Prizes will be forwarded to the two winners.

★

Specialized Service

IN

PROFESSIONAL LIABILITY INSURANCE

is a high mark of distinction

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donold G. Greeno, Representotive
Suite 260, Shelbyville Rood Moll Office Center, 400 Sherburn Lane
Telephone: (Areo Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Chorles E. Foree, Representotive
Suite 103B, 152 East Reynolds Rood
Telephone: (Areo Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

It's smarter to

LEASE

cars, trucks and equipment

NO CASH NEEDED

Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

MEDICAL OFFICE SPACE FOR RENT

TRIANGLE MEDICAL CENTER

Taylorsville Road at Brown's Lane, Louisville

Approximately 1,200 Sq. Ft.

Inquire (502) 451-9056

Headquarters Activity

MAY

1	Paramedic Advisory Committee, Louisville
5-6	Medical Aspects of Sports, Lexington
7-8	Academy of Family Physicians, Louisville
8	Constitution and Bylaws Committee, Louisville
8	Cancer Committee, Louisville
13	*Journal* Editors, Louisville
15	RKMSF, Inc., Louisville
15	Physicians' Health Committee, Louisville
22	Medical Licensure, Louisville

JUNE

10	*Journal* Editors, Louisville
12	CME Committee, Louisville
18-19	Emergency Medical Care Seminar, Louisville

JULY

8	*Journal* Editors, Louisville
20-24	AMA Annual Meeting, Chicago
31	Claims and Utilization Review Committee, Louisville

American Red Cross

Volunteers are needed to work in leadership positions for the Red Cross. If interested call (502) 589-4450.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

EMERGENCY PHYSICIAN needed to share evening rotations in this emergency department located in a lovely community of 10,000 near Paducah; 10-15 patients seen per 12 hour shift, excellent compensation. For details contact Rena Ballard, 970 Executive Parkway, St. Louis, Missouri 63141 or call toll-free 1-800-325-3982.

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition. (502) 895-5429.

OFFICE SPACE in Professional Arts Building. New ultra modern facility located between Clarkson and Leitchfield, Ky. Contact V. F. Duvall, M.D. (502) 242-2311.

EQUIPMENT AND/OR OFFICE SPACE. I am in the process of relocating and am selling general practice office equipment. The 1300 square foot suite is also available on July 1, 1980, and is suitable for almost any type of solo practice. Call (502) 737-3531 after 10 p.m., Elizabethtown, Ky.

POSITION WANTED

ANESTHESIOLOGY, 36, FMG, Board Eligible, F.L.E.X., University Trained, Diverse Clinical Experience, Seeking Group Practice, (901) 386-7414

Practice what we teach

Today there are over 31 million men, women and children suffering from the many forms of arthritis and related rheumatic diseases. And there just aren't enough trained rheumatologists to help them.

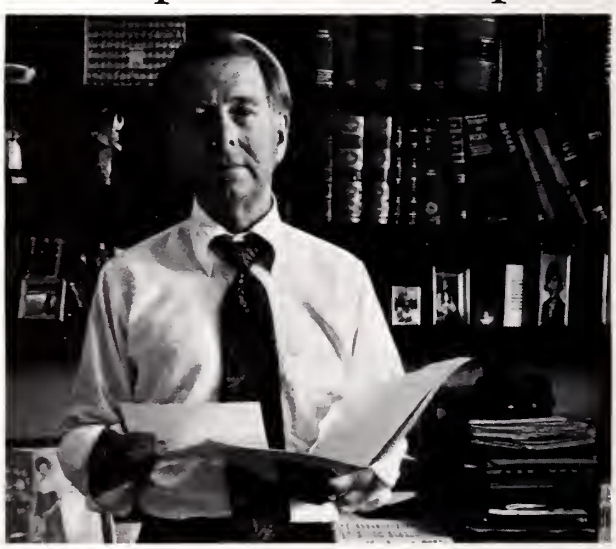
That's why arthritis sufferers need your help.

They must depend heavily on the family practitioner for better diagnosis, more effective patient treatment.

Contact your local Arthritis Foundation chapter for the latest information on arthritis. This includes continuing educational seminars by leading rheumatologists, scientific meetings, "outreach" programs—as well as the "Bulletin on the Rheumatic Diseases," "Arthritis and Rheumatism Journal," "Primer on the Rheumatic Diseases," audio cassettes and other professional materials. Free disease handbooks and medication pamphlets are also available to patients.

Please. Let us help your practice with what we teach.

The Arthritis Foundation helps doctors help.



ARTHRITIS FOUNDATION.

A public service of this magazine.

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets



Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Nutritional Therapy

Antimicrobial Therapy, Case #18: Staphylococcal Pneumonia

Stress and the Medical Student

June 1980
Volume 78
Number 6

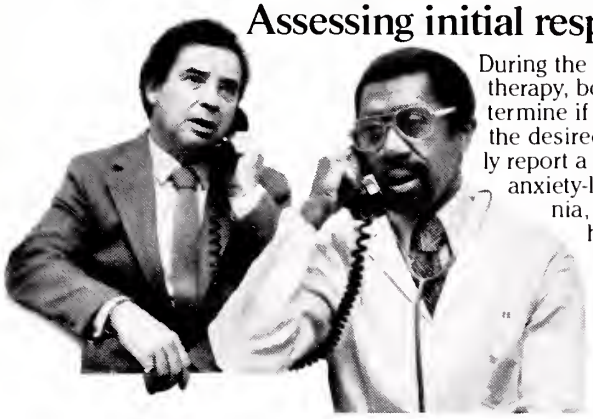
LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA
JUN 30 1980

The Journal Of The Kentucky Medical Association

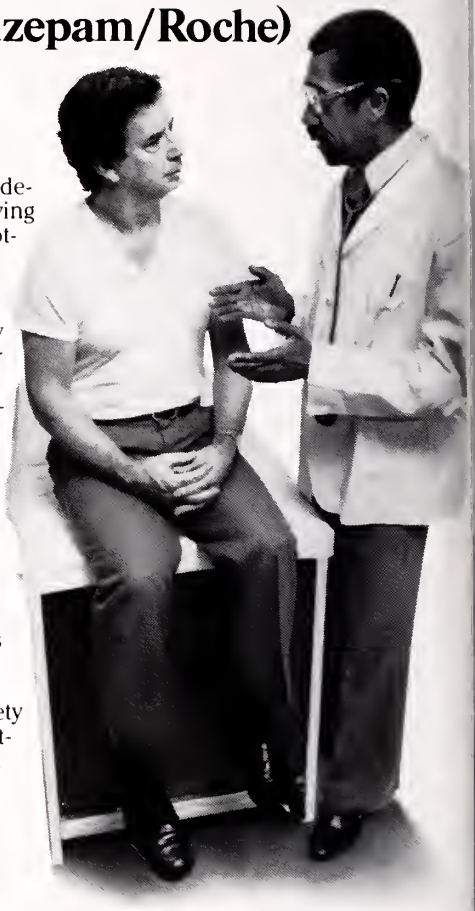
LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA
JUN 30 1980

Monitoring patient response to Valium® (diazepam/Roche)

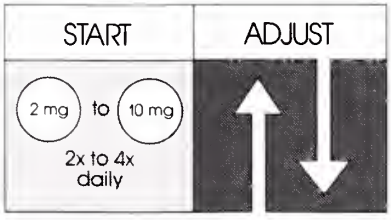
Assessing initial response to therapy



During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments



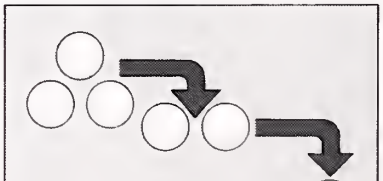
With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily. When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it. Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosag is good medical practic Although rarely necessary after short-term treatment with Valium, gradual dosage reducti is advisable for patients who have been on extended therapy. This gra ual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy higher dosages taken continuously over long periods of time.

2-mg, 5-mg, 10-mg scored tablets

Valium® (IV)
diazepam/Roche

An Important Adjunct to Your Treatment Program for Excessive Anxiety

ROCHE®

See the following page for a summary of product information.

Valium®(diazepam/Roche)℞

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

ROCHE®
Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, New Jersey 07110

Postgraduate Opportunities

JUNE

5 The Consequences of Stress, Health Sciences Center, Louisville**
8-13 11th Family Medicine Review, Session III, Hyatt Regency, Lexington*
18-19 10th Annual Emergency Medical Care Conference & 5th Annual Emergency Medical Services Seminar, Executive West, Louisville
22-28 5th Family Medicine Review, Galt House, Louisville**

JULY

19-20 KAFP Summer Seminar, Owensboro

AUGUST

9-16 JCMS—CME Meeting, Snowmass, Colorado
29-2 ACP-MKSAP V, Hyatt Regency, Louisville

SEPTEMBER

4-6 Gynecologic Surgery, Hyatt Regency, Louisville
21-25 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

1 American Association for Cancer Education, Hyatt Regency, Louisville
27-29 Mid American College Health Association, Hyatt Regency, Louisville

---

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161*

***For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202*

Uncommon Problems in the Human Life Cycle



SPECIAL FEATURES

- Scientific Session Featuring 24 Nationally Recognized Speakers
- Technical & Scientific Exhibits
- 21 Specialty Society Meetings
- Presentation of KMA Awards
- President's Luncheon
- Meetings of House of Delegates
- KEMPAC Seminar

KMA Annual Meeting, Sept. 23-25, 1980, Ramada Inn/Bluegrass Convention Center, Louisville

The Journal Of The Kentucky Medical Association

USPS 280-700

SCIENTIFIC ARTICLES

Nutritional Therapy
Richard A. Wright, M.D. 323

Clinical Approach to the Choice of Antimicrobial Therapy, Case #18: Staphylococcal Pneumonia
John A. Van Arsdall, II, M.D., Julio C. Melo, M.D. and Martin J. Raff, M.D. 331

Stress and the Medical Student
Edward G. McFarland 334

Cytology of Serous Effusion (Grand Rounds)
Charles F. Winkler, M.D., Lawrence D. Loehle, M.D., Brian Vanderboegh, M.D. and Lung T. Yam, M.D. ... 341

EDITORIAL
SZS 353
Comforting Certainties 358

PROFILE
KMA President Robert S. Howell, M.D. 354

ASSOCIATIONAL NEWS
"Uncommon Problems in the Human Life Cycle" is this year's KMA Annual Meeting Theme 375
"Effects of Coitus During Pregnancy" is Doctor Naeye's topic at KMA Annual Meeting 375
Legislative Highlights 376
Corporate Visitation Program Begins with GE 377

REGULAR FEATURES

Postgraduate Page 315	**How's Your Cost Consciousness** 368
President's Page 319	**Members in the News** 378
Manuscript Information 347	**Headquarters Activity** 380
Book Reviews 372	

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $10
(Members $5)
Single Copy $1

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

Volume 78 • June 1980

Issued Monthly Under the Direction of the Board of Trustees

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **MANAGING EDITOR**
Joseph A. Witherington, Jr.

• **ASSISTANT MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• **BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES**

Term Expires July 1, 1980
Gerald D. Temes, M.D.
Jacqueline A. Noonan, M.D.
John J. Guarnaschelli, M.D.
Joseph Whelan, Jr., M.D.
Clinton C. Cook, III, M.D.
Stanley Lowenbraun, M.D.
Eugene H. Conner, M.D.

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 198

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 198

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 198

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 198

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 198

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 198

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 198

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 198

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 198

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 198
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 198
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 198
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 198
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 198
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 198

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 198
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 198
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 198
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 198
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3905 Kresge Way, Louisville 40207—502/897-7107 198
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 198
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 198
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 198
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 198
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 198
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 198
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 198
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 198
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 198
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 198

JUNE BUYERS GUIDE FOR JOURNAL OF KMA

Blue Cross & Blue Shield of Kentucky 348
Boehringer Ingelheim Ltd. 362, 363, 364
Boots Pharmaceuticals 349, 350, 351, 352
Classified Column 380
General Leasing Corporation 380
Insurance Corporation of America 338
Kentucky Medical Insurance Corporation 374
A. P. Lee Agency 370
Eli Lilly & Company 371
Medical Protective Company 37
Medical Office Space 32
Practice For Sale 32
Roche Laboratories 314, 315, 385, 38
William H. Rorer Inc. 382, 383, 38
Schering Corporation 368, 36
Smith, Kline and French 361, 38
United States Air Force 36
Upjohn Company 320, 321, 32
Wyeth Laboratories 339, 340



PRESIDENT'S PAGE

SEVERAL events have occurred during the past few weeks that are of interest and concern to the membership of the Kentucky Medical Association. The fate of medically-related bills has been communicated through the "Legislative Bulletin" or by the president's letter particularly concerning Senate Bill 53 (Medicaid Reimbursement). We will keep you informed of the decisions rendered through the Federal Department of Health and Human Services and as promulgated through the State Department of Human Resources on this issue.

The national scene gives us little respite from continued governmental intrusion. The administration, through the Health Care Financing Administration, has given strong indications that it plans to change certain physician reimbursement practices by regulation without recourse to additional legislation. Briefly, a regulation, published March 11, 1980, in the "Federal Register," deals with reimbursement to hospital-based physicians under the Medicare Program and would, in effect, separate physicians into classes by failing to recognize the current generally accepted definitions of Pathology services as physicians' services. This regulation could have a ripple effect on the entire profession within a short period of time that may eventually submerge the free practice of medicine. I would advise all to read the Medicare Bulletin, Hospital Provider Letter No. 275, issued on May 5, 1980 by the Medicare intermediary.

On a brighter note, and as a continuation of our membership and public education program, we have had a meeting with General Electric corporate officials. This was met with a great deal of enthusiasm from the corporate executives who were pleased to note that we were establishing a line of communication between medicine and industry. It seems the main problem confronting industry is not the use of its medical benefit system but the abuse of those benefits. Examples include medical absences approved by the employee's attending physician which seem unwarranted to the medical department of that particular industry. There were other abuses listed; however, a result of this meeting was a suggestion that KMA could work with other physicians' groups, particularly those involved in occupational medicine, to develop a return-to-work slip which would allow the attending physician to be more specific in the medical reason for the employee's absence. This slip, as I understand it, would constitute a cooperative effort between the physician and the employer. The employer, through the occupational physician, can evaluate job responsibilities which must be considered in the private physician's determination of when the employee can return to work.

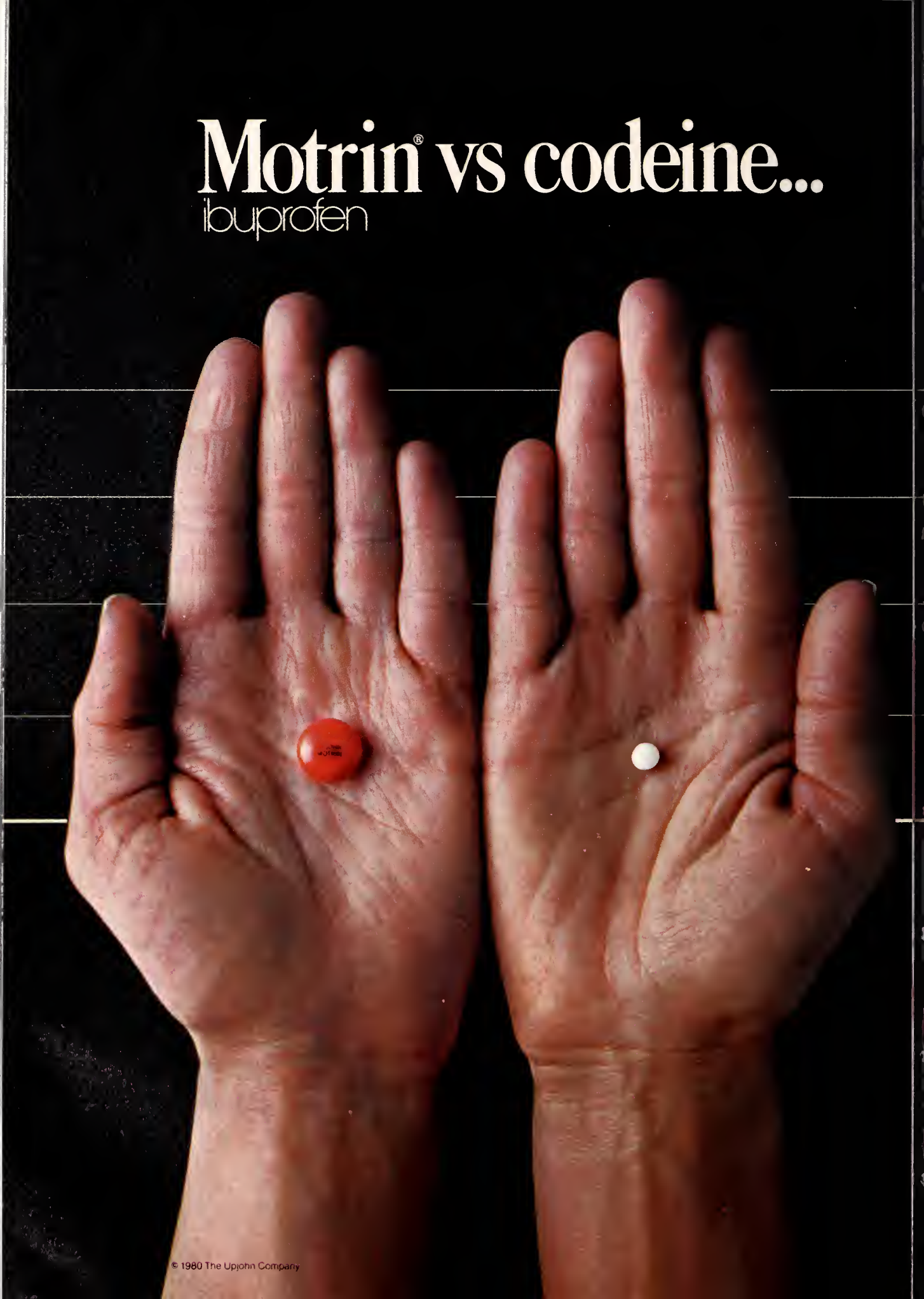
There were other innovative suggestions concerning health cost problems and the way we could work in harmony to approach them. We plan to meet with officials of other corporations and then, at a later date, a meeting of all corporate groups will be held with KMA representatives to summarize our findings and actions that may be taken.

One of the main goals of KMA this year is to keep you informed. The program was outlined in the April issue of the "Journal" and we hope that it is ongoing. This program needs your participation to suggest other ideas of communication and education. As I have said before, KMA does a fine job, but we must tell our story to both the membership and the responsible public.

ROBERT S. HOWELL, M.D.
KMA PRESIDENT

Motrin® vs codeine...

ibuprofen



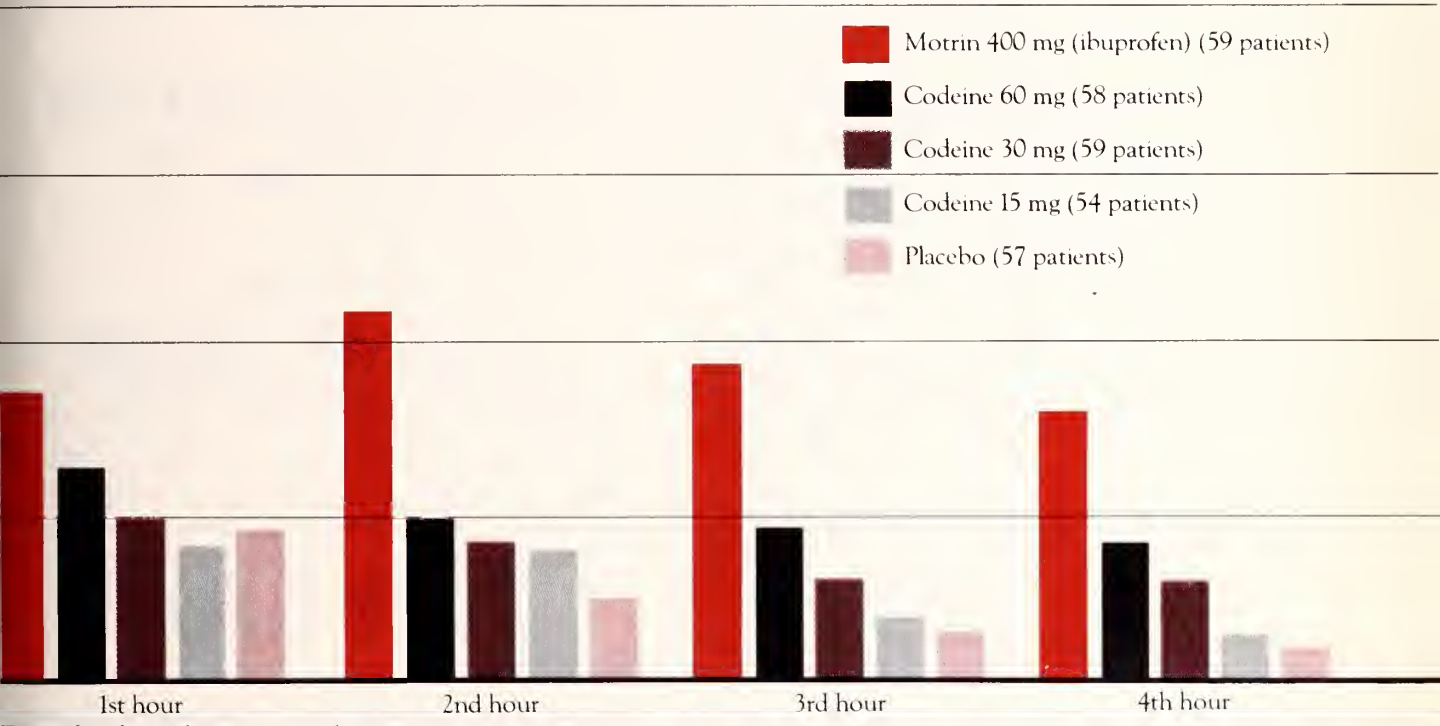
© 1980 The Upjohn Company

compare the analgesic effect

otrin (ibuprofen) 400 mg tablets provided greater relief of pain than codeine
a double-blind, randomized clinical study of 287 patients.
otrin was significantly more effective ($p < 0.01$) than codeine 60 mg at the
, 3- and 4-hour intervals...significantly more effective ($p < 0.01$) than
deine 30 mg, codeine 15 mg, and placebo at all intervals.

egree of pain relief—mean scores

= Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Time after drug administration (hours)

Data on file at The Upjohn Company

ne tablet q4-6h prn pain

well-tolerated, nonnarcotic prescription for mild to moderate pain

Motrin® 400 mg TABLETS

buprofen, Upjohn

Not a narcotic • Not addictive • Not habit forming • Acts peripherally
Relieves pain rapidly • Indicated in acute and chronic pain • Well tolerated
The most common side effect with *Motrin* is mild gastrointestinal disturbance.

ease turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin* used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

MED B-4-S

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-783S-4 May 1980

MEDICAL OFFICE SPACE FOR RENT

TRIANGLE MEDICAL CENTER

Taylorsville Road at Brown's Lane, Louisville

Approximately 1,200 Sq. Ft.

Inquire (502) 451-9056

FOR SALE

Established practice and fully equipped office. Own building and parking lot with apartment above. St. Matthews area. (502) 896-0957

The Journal Of The Kentucky Medical Association

June 1980 Volume 78 Number 6

Nutritional Therapy

RICHARD A. WRIGHT, M.D.

Nutrition is a burgeoning field in medicine. Methods to evaluate nutritional deficiency are detailed. The techniques of enteral and parenteral therapy are outlined. Complications and indications for therapy are discussed. Speculations on future uses of nutrition in various disease states are proposed.

Introduction

NUTRITION has been largely neglected by the medical profession until recently. Most medical schools devote less than three hours of total instruction to nutrition and less than 3% of all questions on the National Boards deal wtih the nutritional aspects of disease.[1] Thus, physicians are not required to have any knowledge of nutrition in order to be licensed to practice medicine.

Even more distressing is evidence presented by Doctor Charles Butterworth of the University of Alabama, indicating that 25%-50% of all patients hospitalized for more than two weeks are iatrogenically malnourished.[1,2] Senator George McGovern addressed this issue at the Third Clinical Congress of the American Society for Parenteral and Enteral Nutrition in Boston on February 1, 1979. Senator McGovern advocates nonreimbursement from federal fundings (Medicare, Medicade) in cases of hospital-caused malnutrition.[1] Furthermore, he plans to focus attention on clinical nutrition via the hospital accreditation review process.[1]

With the development of practical methods to assess nutritional status, it has become increasingly evident that a majority of patients in our hospitals are malnourished. Bistrian et al conducted three single-day nutritional surveys on patients in Boston City Hospital.[3] They found more than two-fifths of the patients were malnourished by standard criteria.[3] A majority of patients were not grossly wasted, but showed definite signs of protein/calorie depletion.[3] Willcutts assessed patients in a private community hospital and more than 50% of persons admitted to the hospital were malnourished, most of whom were subclinically malnourished.[4] We performed a single-day nutritional survey on all patients on the medical service at the Louisville General Hospital on February 9, 1979. We found malnutrition in more than

From the Division of Digestive Diseases and Nutrition, Department of Medicine, University of Louisville School of Medicine and Veterans Administration Hospital, Louisville, Kentucky

75% of patients. Most patients had combined protein-calorie malnutrition. Consequently, many patients on the medical wards of private and public hospitals are in various stages of starvation, whether it is recognized or not.

Given a large percentage of hospitalized individuals are malnourished, does it really make any difference in the course of their disease process? Dudrick and others have clearly demonstrated that protein and calorie malnutrition is associated with depressed T cell mediated immunity.[5,6] Patients in this state will have a total lymphocyte count of less than 1500 and manifest anergy to skin test antigens. Both parameters are reversible with nutrition repletion.[5,6] Subjects whose T cell dysfunction does not respond to protein/calorie replacement have a very high mortality from infection. Wound healing is dramatically enhanced by nutritional repletion.[7] Inflammatory bowel disease is quite responsive to nutritional support.[8,9] Since most reported series are not well controlled or randomized, the answer is not yet available. However, several large cooperative studies are currently underway to identify disease states that are benefited from nutritional repletion.

Nutritional Assessment

How does one tell whether a patient is suffering from malnutrition? Some individuals will be obviously wasted with sunken eyes, muscle atrophy, flaccid subcutaneous tissue and pallor. However, as previously mentioned, the majority of patients will not appear to be malnourished despite underlying deficiencies.[2-4] Patients may report weight loss or change in clothing size. Determining nutritional status by body weight is possible utilizing Metropolitan Life Insurance Company's statistical charts for desirable body weights.[10]

Body fat stores can be estimated using the triceps skin fold measurement. To do this, the skin and subcutaneous fat are gently pulled away from the triceps muscle at the dorsal midpoint of the nondominant upper arm and measured using the Lange calipers. The result is then compared with the standard and listed as a percentage of the norm.

Lean body mass, or for all practical purposes, skeletal muscle mass, may be evaluated in two ways. The midarm circumference is measured at the same point as the skin fold thickness. Taking into account the subcutaneous fat, the arm muscle circumference is the measured value minus 0.314 times the triceps skin fold measurement. This gives a reasonably accurate measurement of the lean body mass, assuming minimal variation in bony diameter. Again, the value obtained is compared with the standard and expressed as a percent deviation from the norm. Another way of calculating lean body mass is by the creatinine-height index. Creatinine is a product of muscle metabolism and is excreted in the urine in an amount roughly proportional to the skeletal muscle mass. A 24-hour urine for creatinine is collected and compared with the ideal creatinine excretion for the person's weight.[11]

Visceral protein function may be assessed by several parameters. A serum albumin of less than 3.4 grams percent in the absence of preexisting liver disease indicates protein malnutrition.[11] The half life of albumin is 20 days in the normal individual, but may be decreased in patients with

FIGURE 1

NUTRITIONAL ASSESSMENT

GROSS APPEARANCE
BODY WEIGHT
FAT STORES (TRICEPS SKINFOLD)
LEAN BODY MASS (MIDARM CIRCUMFERENCE)
(CREATININE—HEIGHT INDEX)
VISCERAL PROTEIN STORES
(ALBUMIN, TRANSFERRIN)
(TOTAL LYMPHOCYTE COUNT)
(DELAYED HYPERSENSITIVITY)
NITROGEN BALANCE

FIGURE 2

ARM MUSCLE CIRCUMFERENCE (CM) =

$$\text{ARM CIRCUMFERENCE} - \left[\begin{matrix}0.314 \times \text{TRICEPS} \\ \text{SKINFOLD (MM)}\end{matrix}\right]$$

CREATININE – HEIGHT INDEX =

$$\frac{\text{ACTUAL URINARY CREATININE}}{\text{IDEAL URINARY CREATININE}} \times 100$$

infection, burns, severe injuries, and gastrointestinal protein losing states. The serum transferrin, as derived from the total iron binding capacity, is also reduced in protein starvation states. The half life of transferrin is five to seven days normally. Consequently, a decrease in transferrin in starvation occurs before a significant drop in serum albumin. A total lymphocyte count of less than 1500 is also indicative of visceral protein depletion. This is commonly associated with cutaneous anergy.[11]

In order to formulate appropriate nutritional therapy for the individual patient, one must determine protein and caloric requirements. The amount of caloric energy required in the basal resting state has been determined for normal human beings in metabolic units. This is derived from weight, height, age, and sex.

In order to determine the severity of catabolism, a nitrogen balance study must be done. The formula used to calculate nitrogen balance is seen in Figure 4. The addition of four to the equation represents insensible loss in the feces and sweat. A negative nitrogen balance indicates that endogenous proteins are being catabolized in excess of ingested protein.

Nutritional Therapy—Practical Aspects

Let us now consider the practical aspects of nutritional therapy. A patient is admitted to the hospital and is noted to have moderate malnutrition from values obtained during the process of nutritional assessment. Despite all attempts, the patient is unable to take a normal amount of calories and proteins. Should one place a central venous line and institute total parenteral nutrition, pass a nasointestinal tube and give tube feedings, or just allow the patient to continue in his malnourished state while diagnostic tests are performed to delineate his underlying disease process? The answer is not clearcut from the data given, but it is certain that there are several reasons for instituting nutritional therapy and correcting deficiencies. As mentioned previously, the malnourished patient is immunoincompetent, a setup for infection.[5,6] Second, chances of successfully treating his underlying disease state, whatever it may be, are diminished when nutritional deficiency is present. Third, if the patient should require surgery for correction of the problem, his mortality and morbidity from an operation are markedly increased by negative nitrogen balance.[7-9] It is, therefore, in the patient's best interest to administer nutritional therapy.

Having made the decision that nutritional supplementation is required, one must determine the best means to accomplish the goal. In general, if the patient's gastrointestinal tract is functional, and there is no contraindication to feeding via the intestinal route, enteral nutrition is preferable. It is safer, cheaper and more physiologic than parenteral nutrition.

In the past decade many advances have come about in enteral nutrition, both in the form of available formulas and in mechanics of administration. New intestinal tubes which are small in caliber, soft, and weighted with a mercury capsule to facilitate peristaltic passage into the small bow-

FIGURE 3

BASAL ENERGY EXPENDITURE (BEE)

MEN

BEE = 66 + (13.7 X WEIGHT (KG)) + (5 X HEIGHT (CM)) − (6.8 X AGE (YR))

WOMEN

BEE = 665 + (9.6 X WEIGHT (KG)) + (1.7 X HEIGHT (CM)) − (4.7 X AGE (YR))

*FIGURE 4

$$\text{NITROGEN BALANCE} = \left[\frac{\text{PROTEIN INTAKE}}{6.25}\right] - \left[\text{URINARY UREA NITROGEN} + 4\right]$$

*Mackenzie T, Blackburn GL, Flatt JP: Clinical Assessment of Nutritional Status Using Nitrogen Balance. FED PROC 33:683, 1974

el have been developed. Examples of these include the Dobbhoff and Keofeed feeding tubes. These are six to eight French soft polyethylene tubes which have hermitically sealed mercury capsules at the distal tip. They are passed via the nasopharynx into the stomach. Liquid feedings are initiated, and gastric peristalsis carries the mercury tip into the small bowel where it is effectively anchored, relatively resistant to accidental tension which would result in extubation. Since the infused nutrients enter the gastrointestinal tract distal to both sphincters (pylorus and LES), aspiration is usually not a problem. In addition, the tube is so small and flexible that it causes minimal patient discomfort. Furthermore, pulmonary toilet is well maintained because patients are able to cough without the discomfort that is commonly attendant with stiffer nasogastric tubes. In 1977, Dobbie reported a series of 250 patients with a variety of esophageal problems on Dobbhoff tube feedings. There were no complications in any patient in the series.[12] He claimed that the feeding tube was so atraumatic that esophagitis was never a problem. He also noted that the polyethylene tubes rarely clogged and could be used continuously for up to six months.[12] Because the feeding tube is soft and of small caliber, some clinicians have found it difficult to insert. This problem can usually be averted by simply having the patient advance the tube to the posterior pharynx and swallow when the mercury capsule reaches the hypopharynx. In difficult cases, the tube may be placed using a fiberoptic endoscope. Before this is attempted, however, an 18 French salem sump tube should be placed in parallel with the feeding tube and the distal ports inserted into a gelatin capsule. The tubes together are passed into the stomach easily because of the rigidity of the combined tube assembly. When the distal tips of the tubes are in the stomach as documented by fluoroscopy, vigorous irrigation with a catheter tip syringe will dislodge the gelatin capsule and the salem sump tube may be removed leaving the Dobbhoff tube in place. Metoclopramide (Reglan®) may be given intravenously in a 10 mg bolus to enhance gastric emptying once the feeding tube is located in the stomach. This mercury bolus is propelled into the small bowel where nutrients may be infused without fear of aspiration or gastric retention.

Recently, pharmaceutical firms have developed a wide variety of tube feedings that provide the proper nutrients in the optimal amount at a reasonable price. Some mixtures have been developed for patients with the ability to digest and absorb food stuffs, while others are tailored for patients with specific problems.

There are several characteristics of an ideal tube feeding mixture. With the rising cost of health care, price is a key consideration. The nutrient solution must be sterile to avoid bacterial degradation. Low osmolality is desirable because it reduces the problem of diarrhea that may accompany hyperosmolar formulas. The optimal caloric density is thought to be one calorie per milliliter. A protein/calorie ratio of one to 150 has been shown to enhance nitrogen conservation. Careful consideration of electrolyte, vitamin, and mineral content must be made. The formula must be aesthetically pleasing to sight and smell to be acceptable to the patient and nursing staff. It must be homogenized so that lipids do not separate out. Finally, its viscosity must permit infusion through a small bore feeding tube.

The types of commercially available liquid diet are defined formula, elemental and modular. The defined formula diets are complete feedings consisting of complex carbohydrates, whole proteins and homogenized fat. In general, they have a high osmolarity, although most new preparations are isosmolar. They are the least expensive of any liquid feeding. Their clinical use is in patients who have a relatively intact gastrointestinal but suffer from anorexia or the inability to consume adequate amounts of food.[13]

Defined formula diets vary greatly with respect to their carbohydrate, protein and fat content. Milk based products such as Meritene or Sustacal contain significant amounts of lactose and may not be satisfactory for use in lactose deficient individuals. Patient acceptability can be enhanced and taste fatigue lowered by using different flavoring agents.

Elemental diets include a group of products composed entirely of clearly defined, chemically discrete basic compounds. These diets consist of

mixtures of purified L-amino acids, protein hydrolysates, or easily digestible intact protein with glucose, sucrose or hydrolyzed starch as a major caloric component. Most formulas have little fat. Consequently, patients treated with elemental diets for long periods may require oral corn or safflower oil or lipid emulsion given intravenously. Elemental diets are indicated in patients with impaired pancreatic and small bowel function since they are assimilated rapidly with little or no digestion and leave little residue. Examples include patients with gastrointestinal-cutaneous fistulae, short bowel syndrome, inflammatory bowel disease, pancreatitis and food allergies. Again, several preparations are hyperosmolar and may induce diarrhea.[14]

Modular feedings are specific nutrients, not complete feedings, that can supplement another commercial formula in a particular nutrient category. For example, MCT oil could be used to add essential fatty acids to an elemental diet lacking in those constituents.

Having selected the appropriate product for the nutritional requirement of the patient, what is the best means to administer it? Most students of enteral nutrition have advocated the use of a continuous infusion pump.[15] This method insures contiuous caloric supplementation without boluses that may overcome the ability of the small bowel to absorb the nutrients. Continuous flow also decreases the incidence of tube clogging and allows for the accurate quantitation of administered formula. The infusion should be started at 50 milliliters per hour and increased slowly over a 24 to 48-hour period to the desired total daily administration.[15,16] In general, in order to obtain an anabolic state while giving nutrition enterally, one must calculate caloric needs on the basis of 1.5 times the basal energy expenditure. Nitrogen balance studies may be required in some patients to document positive nitrogen balance (i.e. burns, severe trauma).[11] It is important that all solutions are labeled in large red letters "Not for Intravenous Use" to avoid the disastrous consequence of infusing enteral feedings intravenously.[15,16]

Several factors influence patient tolerance to enteral feedings. Sterile technique is mandatory since most enteral preparations are ideal media for bacterial growth. Preparations that are mixed in a blender in the hospital must be refrigerated immediately and used within 24 hours of mixing. Raw eggs, which were previously added to supplement protein intake should not be used because of the risk of Salmonella contamination. The temperature of the mixture is also important. The use of the feeding solution which is too cold is one of the major causes of nausea, vomiting, cramps and diarrhea. Thus, a formula should be given at room temperature. The volume of feeding and the flow rate also have a significant effect.[16-18] When the formula is infused into the stomach, gastric secretions compensate for the hyperosmolarity. However, when using small bowel feedings, an isosmolar solution is much more advantageous to avoid the consequences of diarrhea and extracellular volume depletion.[17] In the postoperative patient, or any disease causing a relative ileus, the stomach cannot be utilized as a reservoir for enteral feedings since gastric retention, vomiting, and aspiration is almost certain to ensue. There is, however, reasonable evidence documenting the fact that motility in the stomach and colon is affected much more than that of the small bowel. Consequently, intubation of the small bowel with infusion of nutrients can be done in the patient with "ileus." In such patients, a combination of peripheral intravenous nutrition with lipid emulsion and isotonic amino acids may be used with continuous infusion enteral feedings for optimal benefits. In addition to the calorie/protein requirements of each individual, close attention to fluid and electrolytes must be paid. Patients with minimal diarrhea from enteral feedings may rapidly become dehydrated and hypernatremic unless adequate fluid intake is insured. The average patient requires 2,500 milliliters and additional water besides the infused nutrient solution to stay in equilibrium. Individuals with fever, infection, major surgery and a variety of other problems may require up to five additional liters of free water per day.[16,17]

While it is not necessary to monitor patients receiving enteral feedings as closely as those on total parenteral nutrition, certain parameters must be followed. Accurate records of daily weight, intake and output, and stool count are

absolutely mandatory. Urine should be checked for glucose and acetone twice daily and blood sugar and electrolytes checked every other day. Unless there are specific contraindications, patients should be encouraged to ambulate and consume peroral food when desired.[16,17]

Nitrogen balance studies as described earlier should be repeated three days after the initiation of therapy to document positive balance. A repeat nutritional assessment on a weekly basis will also be of benefit in documenting therapeutic efficacy.[15,17]

Enteral alimentation is an effective, simple, and safe means in which nutritional therapy can be administered. It is cheaper to administer a defined formula diet via an infusion pump than to serve a standard hospital diet.

Total Parenteral Nutrition

Total parenteral nutrition (TPN) is a relatively new innovation to patient care. In its 10 years of general use, it has proven quite efficacious in the nutritional support of patients in various stages of malnutrition. Indeed, it has significantly reduced the morbidity and mortality of a number of disease states. Parenteral nutrition has changed the approach to the treatment of inflammatory bowel disease and short bowel syndrome. Patients with profound catabolism resulting from burns or trauma can now receive adequate nutrients to meet their requirements.[18-21]

Hyperalimentation is the term that is most commonly applied to parenteral feedings. The term is a misnomer since it implies overfeeding, a condition that should not exist in experienced hands. Consequently, most authorities are now using "total parenteral nutrition" instead of hyperalimentation when referring to intravenous feeding.

Indications and Complications of Total Parenteral Nutrition

The aim of total parenteral nutrition is to provide all nutrients required by the patient without overfeeding. In general, if the gastrointestinal tract is functional and there are no contraindications to its use, enteral nutrition, either by oral feedings or nasointestinal tube, is the approach of choice.

There are both general and specific indications for parenteral nutrient support. General indications include a recent loss of 10% or more of the ideal body weight for chronic cachexia.[18] The acute loss of 25% of the usual body weight is associated with a very high mortality as is the long-term loss of 50% of the usual body weight.[18,19] Patients who will be expected to receive nothing by mouth for two weeks or more should also be considered for parenteral nutrition unless they have a large muscle mass or adipose reserves.[18]

Specific indications for parenteral nutrition include congenital gastrointestinal abnormalities such as atresia, omphalocele, and gastroschisis. Patients with inflammatory intraabdominal disorders including inflammatory bowel, pancreatitis or peritonitis, can be given complete bowel rest while receiving maintenance intravenous nutrition.[18] Subjects with acquired disruption of the gastrointestinal continuity with problems such as strictures or trauma can be given the best opportunity for wound healing and survival with maintenance of protein/calorie balance. Individuals with profound anorexia, nausea or vomiting, such as may be seen in anorexia nervosa, pernicious vomiting of pregnancy or cancer chemo or radio therapy can be managed effectively with intravenous feedings. Lastly, hypermetabolic states caused by burns or trauma may require parenteral nutrition as a total or supplemental source of nitrogen and calories.[18,19]

The preparation and delivery of parenteral nutrients is a topic which is discussed in detail in standard nutritional textbooks.[22,23] In general, commercial solutions must be mixed by sterile technique and administered with 24 hours. All hypertonic solutions must be infused into a high flow venous system to permit rapid dilution and minimize vascular damage. This is best accomplished using a subclavian or internal jugular venous access. Meticulous sterile care of the catheter site is mandatory.[22,23]

Complications of total parenteral nutrition are inversely related to the experience of the physician in charge of its administration. The two major categories of problems are mechanical and metabolic.[18,19]

Mechanical deficiencies include incorrect catheter placement and care, non-sterile techniques in mixing techniques or maintaining catheter sites. Sepsis can be reduced to less than 5% by strict adherence to proven protocols. This requires correct and sterile formulation of nutrients which is best done by a trained pharmacist. Aseptic catheter placement is accomplished by a physician skilled in the technique. Infusion of the nutrients at a constant rate with a reliable pump is done with the help of trained nursing personnel. This obviously requires a TPN team comprised of physicians, nurses and pharmacists who are dedicated to this purpose.

Metabolic problems commonly involve the misuse of nutrient mixtures or idiosyncratic reactions to them. Dehydration, overhydration, acid/base and electrolyte derangements can be avoided by conventional monitoring techniques.[18,19] Additive incompatibilities can be adverted by knowledge of the same or by allowing a pharmacist who is usually more familiar with such aspects to formulate these solutions as ordered. Hyperglycemia may necessitate the addition of insulin to the solution but most normal adults can tolerate 0.5 grams per kg body weight per hour continuous glucose infusion without it.[18-20] Hypoglycemia most commonly results when the infusion is abruptly halted for any reason.[18-21] Allergic or pyrogenic reactions are uncommon and unpredictible and must be handled on an individual basis. Specific deficiency states (i.e. fatty acid, vitamin, mineral) may develop in long-term total parenteral nutrition if one essential nutrient is omitted or neglected. Nutrient toxicities, particularly of Vitamin A and Vitamin D, occur because of the shotgun approach to vitamin therapy in patients on long term TPN. Organ failure, renal and hepatic most commonly, may present a problem in nutrient metabolism and by-product excretion. Special formulations for these conditions are now available commercially.

Composition of Parenteral Nutrient Solutions

The composition of a parenteral nutrient solution is of great importance since it must usually contain all essential elements for normal body metabolism and tissue repair.[18,19] Adequate water and calories are required for the energy needs of the patient and excretion of the toxic by-products of metabolism.[18,19] About 25 to 35 kilocalories per kilogram ideal body weight per day is the average caloric requirement for the uncomplicated hospitalized patient. Energy needs increase dramatically (up to 5 to 8 times normal) during extreme stress, such as may occur in sepsis, burns, and trauma.[6] Protein must be supplied in the form of hydrolyzed proteins or amino acids. The best way to judge whether an adequate amount of protein is being given is to do a daily nitrogen balance assessment as described previously.

Essential fatty acids are best given as lipid emulsion which is a 10% safflower or soybean oil/egg yolk phospholipid emulsion. A 20% soybean/safflower oil emulsion will be introduced within a few months. Both solutions are isotonic and can be given via a peripheral vein. Contraindications for use include pancreatitis, pathological hyperlipemic states, severe liver disease, and bleeding diatheses.[22,23] Electrolytes, magnesium, calcium and phosphate are generally given in amounts available in commercial solutions, but requirements may vary. For example, a patient with inflammatory bowel disease may require more potassium because of diarrheal loss. Vitamin, mineral and fatty acid requirements have not yet been well defined for all groups of stressed patients. It is clear that zinc and ascorbic acid are essential for normal wound healing.[22,23] Routinely, one ampule of multivitamins is infused daily and at least 500 milliliters of fat emulsion given weekly to avoid gross deficiency states. Suffice it to say that for now one must utilize an empiracle approach for these nutrients.

Future of Total Parenteral Nutrition

Many exciting innovative modifications of TPN are now under study. Home parenteral nutrition has been accomplished with excellent success in many centers. Patients with subtotal small bowel resections are dependent on parenteral nutrition often permanently.[22,23] As an adjunct to cancer chemotherapy, radiotherapy, immunotherapy or surgery, it is currently under vigorous investigation. Copeland has shown that patients who are well nourished tolerate therapy for their malig-

nancy far better than patients eating on a prn basis and are able to receive higher doses of antineoplastic drugs with fewer gastrointestinal and hematological toxicity.[24] The initial fear that nutritional therapy might enhance tumor growth has been discounted somewhat. Copeland studied tumor growths in mice innoculated with Morris hepatoma, a transplantable tumor.[24]. He gave one set of rats total parenteral nutrition for a duration of one week and allowed the other set of rats to eat standard rat chow ad libitum. He found that the rats on total parenteral nutrition gained weight while those on ad libitum feedings lost. When sacrificed, the tumor size was larger in rats fed intravenously than those given ad libitum oral feedings. However, the body weight to tumor weight ratio was the same in both groups.[24] DeRosa has shown that tumor growth is directly related to caloric intake of the host in the young actively growing rat.[25] In older rats, however, the tumor growth was not related to caloric intake unless the tumor model used is extremely anaplastic.[25] Consequently, it would appear that the age of the subject as well as the biological activity of the malignancy must be considered in giving nutritional support. Even more exciting than the adjunctive nutritional therapy for cancer is primary antineoplastic nutritional therapy. It is well known that tumor metabolism differs substantially from that of its host. By selectively deleting certain metabolites essential for tumor growth but not for the well being of the host, tumor eradication could be achieved with minimal host toxicity. In the future, cell cultures of an individual tumor could lead to the development of a prescription based on the metabolic requirements of the neoplasm. Finally, inborn errors of metabolism such as selective enzyme deficiencies might be treated initially with total parenteral nutrition and then enteral feedings designed to circumvent the metabolic disorder.

Despite the fact that nutrition is one of the oldest sciences, compared with other fields in medicine, it is still in its infancy. Rapid proliferation of knowledge and technical advancements in this area in the next decade is predicted.

References 1. McGovern G: Address to The American Society for Parenteral and Enteral Nutrition for the Third Clinical Congress, *J Paren Ent Nutr* 3:137-138, 1979. 2. Butterworth CE: The Skeleton in the Hospital Closet. *Nutrition Today* 9:4-8, 1974. 3. Bistrian BR, Blackburn GL, et al: Prevalence of Malnutrition in General Medical Patients, *JAMA* 235:1567-1570, 1976. 4. Willcutts HD, personal communication. 5. Daly JM, Dudrick SJ, Copeland EM: Effects of Protein Depletion and Repletion on Cell Mediated Immunity in Experimental Animals. *Ann Surg* 188:791-798, 1978. 6. Law DK, Dudrick SJ, Abdov NI: Immuno-incompetence of Patients with Protein Calorie Malnutrition. *Ann Int Med* 79:545-550, 1973. 7. Souchon EA, Englert D, Duke JH Jr., Dudrick SJ: Intravenous Hyperalimentation in 342 Surgical Patients. *Rev Surg* 33:297-299, 1976. 8. Fischer JE, Foster GS, Abex RM, Abbott WM, Ryan JA: Hyperalimentation as Primary Therapy for Inflammatory Bowel Disease. *Am J Surg* 125:166-176, 1973. 9. Anderson DC, Boyce HW Jr.: Use of Parenteral Nutrition in Treatment of Advanced Regional Enteritis. *Am J Dig Dis* 18:633-640, 1973. 10. DuBois D, DuBois EF: A Formula to Estimate the Approximate Surface Area if Height and Weight are Known. *Arch Intern Med* 17:863-871, 1016. 11. Blackburn GL, Bistrian BR, Maini BS, Schlamm HT, Smith MF: Nutritional and Metabolic Assessment of the Hospitalized Patient. *J Paren Ent Nutr* 1:11-22, 1977. 12. Dobbie RP, Butterick OD Jr.: Concinuous Pump/Tube Enteric Hyperalimentation Use in Esophageal Disease. *J Paren Ent Ntr* 1:100-104, 1977. 13. Blackburn GL, Merritt RJ: Nutritional Support of Pediatric Patients. Unpublished paper. 14. Young EA, Heuler N, Russell P, Weser E: Comparative Nutritional Analysis of Chemically Defined Diets. *Gastroenterology* 69:1338-1345, 1975. 15. Dobbie RP, Hoffmeister JA: Continuous Pump-tube Enteric Hyperalimentation. *Surg Gynecol Obstet* 143:273-276, 1976. 16. Kaminski MV: Enteral Hyperalimentation. *Surg Gynecol Obstet* 143:12-16, 1976. 17. Gormican A, Liddy E: Nasogastric Tube Feedings. *Postgrad Med J* 53:71-76, 1973. 18. Law DH: Current Concepts in Nutrition: Total Parenteral Nutrition. *NEJM* 297:1104-1107, 1977. 19. Fleming CR, McGill DB, Hoffman HN, Nelson RA: Total Parenteral Nutrition. *Mayo Clinic Proc* 51:187-199, 1976. 20. Dudrick SJ, Rhoads JE: New Horizons for Intravenous Feeding. *JAMA* 939-949, 1971. 21. Shelton GF, Way LW: Total Parenteral Nutrition. Viewpoints on Digestive Diseases. Volume 7, No. 3, 1975. 22. Fischer JE (ed) *Total Parenteral Nutrition.* Little Brown and Co. Boston, 1976. 23. Meng HC, Law DH: *Parenteral Nutrition.* Charles C Thomas, Springfield, 1978. 24. Copeland EM: Intravenous Hyperalimentation as an Adjunct to Cancer Patient Management. *CA* 3:102-108, 1978. 25. deRosa G: Tumor Growth and Caloric Intake in Rats Bearing Transplantable Hepatomas. *J Paren Ent Nutr* 3:23, 1979.

Clinical Approach to the Choice of Antimicrobial Therapy, Case Number 18: Staphylococcal Pneumonia

JOHN A. VAN ARSDALL, II, M.D., JULIO C. MELO, M.D. AND MARTIN J. RAFF, M.D.

This is the eighteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the use of antibiotics. A case history is presented, followed by choice of antimicrobial agents and explanations of why the authors choose one as the best agent.

A 42-year-old white female is admitted to hospital with a three day history of **recurrent** chills, tachypnea, a cough productive of thick yellow sputum and elevation of temperature to 103°F. Over the past two days her condition has rapidly worsened with progressive dyspnea and increasingly severe pleuritic chest pain. Upon questioning, you learn that her present illness actually began 10 days prior to admission with the onset of pharyngitis, headache, dry non-productive cough, severe myalgias, recurrent chills and spiking fever. At that time she had received a "penicillin shot" for her pharyngitis and a prescription for oral phenoxymethyl penicillin (Pen Vee K®). Initially, she improved rapidly, with only minimal symptoms remaining after six days of convalescence, and had returned to work. Her return was only brief, however, as she quickly experienced the sudden and marked worsening of her condition described above.

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, The University of Louisville School of Medicine, Louisville KY 40292.

Physical examination reveals a distressed, anxious 42-year-old female appearing acutely ill. Her temperature is 102°F, pulse 110/min. respiratory rate 26/min., and blood pressure 130/70 mm Hg. Pertinent physical findings include: cyanosis of the lips and nail beds and diminished breath sounds with rales audible in the right lung. The lower and mid lung fields are involved both anteriorly and posteriorly without physical evidence of consolidation. No cardiac abnormalities are apparent. Laboratory studies reveal a WBC count of 21,000/mm^3 with 76 neutrophils, 10 bands, and 14 lymphocytes

At this point each of the following would be appropriate in this patient **except:**

A. Arterial blood gases.
B. Gram stain and culture of expectorated sputum.
C. Begin tetracycline, 250 mg po qid.
D. Blood cultures times three, 30 minutes apart.
E. Chest x-ray.

Answer: C. Neither tetracycline nor any other antibiotic should be started until further diagnostic studies have been performed to ascertain the etiology of the infection. Clinically, the patient has pneumonia involving extensive portions of the right lung. The etiologic agent is unknown at this time, but it appears to have closely followed a severe viral respiratory illness which was likely to have been influenza. The characteristic onset of pharyngitis, dry cough, headache, general malaise, severe and diffuse myalgias, and recurrent

chills all suggest a diagnosis of influenza. This is especially true during the winter months and when there are known outbreaks in the area. Since she had been improving clinically prior to the onset of her most recent symptoms it would be unlikely that the current pneumonia is due to influenza. Her present illness is most likely to be a secondary bacterial pneumonia. The diagnosis of bacterial pneumonia is supported by the presence of purulent sputum and the high peripheral WBC count of greater than 15,000/mm^3 in an adult should strongly suggest the probability of secondary bacterial infection.[1]

In response to question #1, tetracycline should not be administered to this patient until further assessment for a bacterial pathogen has been performed. Unfortunately, this patient had been treated with penicillin for what was most likely a viral syndrome. In this event, the penicillin may have altered her normal bacterial flora; may affect the nature of the organisms likely to grow from cultures and also makes it likely that the agent responsible for her pneumonia is resistant to penicillin. This in turn makes the interpretation of the sputum gram stain even more important as a guide to the initiation of proper therapy. Blood cultures are necessary for diagnostic, therapeutic, and prognostic value.[2]

Chest x-ray reveals diffuse pulmonary infiltrates involving the right lower and right middle lobes with multiple areas suggestive of abscess formation. Arterial blood gases demonstrate mild hypoxemia with a pO_2 of 65 mm Hg. Sputum gram stain reveals numerous polymorphonuclear leucocytes with clusters of gram-positive cocci, many of which appear to be intracecellular (or leucocyte-associated). You should now begin:

A. Tetracycline, 500 mg IV q 6 h.
B. Gentamicin (Garamycin®), 80 mg IM q 8 h.
C. Oxacillin (Prostaphylin®), 2 grams IV q 4 h.
D. Aqueous Penicillin G, 2 million units IV q 4 h.
E. Carbenicillin, 5 grams IV q 4 h.

Answer: C. The most likely diagnosis for this patient is acute primary staphylococcal pneumonia. The presence in the sputum of gram positive cocci in clumps, many of which are intracellular should alert one immediately to the possibility of staphylococcal infection, and a beta-lactamase resistant, semi-synthetic penicillin such as methicillin, oxacillin, or nafcillin should be administered. The mortality from staphylococcal pneumonia is so great[3,4] that one should assume the organism to be resistant to aqueous penicillin G before sensitivities are available and therapy is begun. In this case, as mentioned above, pretreatment with penicillin virtually assures us of a penicillin-resistant organism.

During non-epidemic periods of influenza, staphylococcal pneumonia accounts for approximately 5% of all hospitalized lung infections.[5] The clinical picture varies widely, but patients appear to be far more severely ill than their clinical findings suggest. People with underlying diseases, particularly chronic lung disease, metabolic diseases such as diabetes mellitus, or immunosuppressed individuals who are frequently placed on broad spectrum antibiotics have enhanced susceptibility to staphylococcal superinfection. Infants under the age of six months account for the majority of pediatric cases, most likely related to colonization of the respiratory tract during nursery epidemics.[5,6] Young adults, tend to have staphylococcal pneumonia only rarely. However, when it does occur, it frequently follows viral infections such as influenza or measles.[5]

Therapy for staphylococcal pneumonia in adults may require two to four weeks of parenteral treatment, and most patients will require 48 to 72 hours of therapy before any significant clinical response will be evident.[1] Radiologic changes are not specific for the diagnosis of *Staphylococcus aureus* infection but frequently this organism may produce a necrotizing pneumonia with multiple areas of abscess formation. Empyema is not unusual and in children this disease may present as a pneumatocele.[3] Acute sudden clinical illness is generally the rule, however, less dramatic subacute infections may occur, especially in children.

Chickering and Park in 1919[4] reported an increased incidence of staphylococcal pneumonia following the 1918 pandemic of influenza A. Considered a rarity before the pandemic, a total

of 153 deaths due to staphylococcal penumonia were confirmed at Camp Jackson, South Carolina alone. Up to 30% of normal individuals will harbor *S. aureus* in the anterior nares.[7] Staphylococci that are present in the upper respiratory tract may then be aspirated into the lung, producing a primary staphylococcal pneumonia. This appears to be particularly true for those persons whose respiratory tract defense mechanisms have been impaired by antecedant influenzal infection.

Hughes, et al,[8] reported in 1976 that 85% of community acquired staphylococcal infections of the skin were resistant to penicillin. This again stresses the need to use a penicillinase resistant penicillin derivative in the treatment of life threatening staphylococcal infections. Penicillin G and carbenicillin therefore, should not be administered to this patient as both of these compounds are sensitive to degradation by penicillinase (a beta-lactamase).

Tetracycline has no value in the treatment of life-threatening staphylococcal infection.[7] Gentamicin is effective against *S. aureus in vitro*[9] and when used in combination with beta-lactam antibiotics in animal studies of endocarditis there is more rapid sterilization of the blood than when using penicillin compounds alone.[10,11,12] Aminoglycosides, however, have such poor tissue penetration,[13,14] especially into pulmonary parenchyma, that they should not be used alone, when possible, in treating pneumonia. This is especially true when more effective and less toxic antibiotics are available.

The laboratory now informs you that two of three blood cultures are growing a coagulase-positive staphylococcus *(S. aureus)*. Which of the following additional measures are correct?

A. Search for sites of *S. aureus* infection outside the pulmonary parenchyma.
B. Question the patient concerning possible drug abuse.
C. Perform an echocardiogram.
D. Search for peripheral evidence of embolization.
E. All of the above.

Answer: E. All of the above. Bacteremia occurs in less than 20% of patients with primary staphylococcal penumonia,[5] and frequently, when blood cultures are positive, a secondary form of staphylococcal pneumonia spread hematogenously from some other primary focus of infection must be considered. In addition, since *S. aureus* is capable of surviving within the leucocyte,[15] it is frequently spread hematogenously by these cells, creating metastatic sites of staphylococcal infection. Chronic staphylococcal infections can involve bone, brain and numerous other soft tissues.[16] Although many of these sites may be treated successfully by therapy directed against the pneumonia, occasionally these distal foci may require drainage, extended duration of therapy or the addition of other antimicrobial compounds.

Intravenous drug users also have an increased frequency of serious staphylococcal infections which appear to be introduced by contaminated and infected skin, thus producing bacteremia and possibly endocarditis, secondary pneumonia, or metastatic abscesses.

Finally, bacterial endocarditis must be excluded in any debilitated patient with *S. aureus* bacteremia. Careful physical examination, searching for peripheral embolic manifestations of endocarditis and an echocardiogram looking for valvular vegetations should all be performed. Any evidence suggestive of the possibility of endocarditis should result in the patient being managed as such presumptively.

References 1. Fekety FR: Staphylococcal pneumonia. In Cecil Textbook of Medicine, 5th edition, WB Saunders Company, Philadelphia, p. 401, 1979. 2. Van Arsdall JA, Melo JC, Raff MJ: A Clinical approach to the choice of antimicrobial therapy: Case #15: Legionnaires' Disease. *JKMA* 78:143-145, 1980. 3. Fischer AM, Trever, RW, Curtin JA, et al: Staphylococcal pneumonia. A review of 21 cases in adults. *N Engl J Med.* 258: 919-928, 1958. 4. Chickering HT, Park JH: *Staphylococcus aureus* pneumonia. *JAMA* 72:617-626, 1919. 5. Shulman JA, Nahamias AJ: Staphylococcal infections: Clinical aspects. In The Staphylococci, edited by Jay O. Cohen. John Wiley and Sons, Inc., New York, 1972. 6. Wise RI: Modern management of severe staphylococcal disease. *Medicine* 52:295-304, 1973. 7. Cluff LE, and Reynolds RJ: Management of Staphylococcal infections. *Amer J Med* 39:812-825, 1965. 8. Huges CB, Chidi CC, Macon WL: Staphylococci in community-acquired infections: Increased resistance to penicillin. *Ann Surg* 183:355-357, 1976. 9. Hoeprich PD: Gentamicin versus *Staphylococcus aureus. J Infec Dis* 119:391-392, 1969. 10. Licht JH: Penicillinase-resistant penicillin/gentamicin synergism. *Arch Intern Med* 139:1094-1098, 1979. 11. Steigbigel RT, Greenman RL and Remington JL: Antibiotic combinations in the treatment of experimental *Staphylococcus aureus* infection. *J Infec Dis* 131:245-251, 1975. 12. Van Arsdall JA, Barnwell PA, Melo JC, Raff MJ: A clinical approach to the choice of antimicrobial agents: Case #11: Subacute bacterial endocarditis. *JKMA* 77:565-568, 1979. 13. Pennington JE and Reynolds HY: Pharmacokinetics of gentamicin sulfate in bronchial secretions. *J Infec Dis* 131:158-161, 1975. 14. Klastersky J, Geuning C, Mouawad E, et al: Endotracheal gentamicin in bronchial infections in patients with tracheostomy. *Chest* 61:117-120, 1972. 15. Beam TR: Sequestration of staphylococci at an inaccessable focus. *Lancet* 8136:227-228, 1979. 16. Musher DM, McKenzie SO: Infection due to *Staphylococcus aureus. Medicine* 56:383-409, 1977.

Stress and the Medical Student

EDWARD G. McFARLAND, UNIVERSITY OF LOUISVILLE MEDICAL STUDENT

STRESS is an integral part of our human existence, and how we react to that stress can be either beneficial or harmful, mild or severe, acute or chronic. Nowhere is that strain more evident than in education, where every exam can be taken to represent a challenge to one's homeostasis. On the one side is the societally reinforced drive to succeed and on the other is the need to meet other personal needs. This paper will examine the manifestations of stress in medical education, particularly in the first year of medical school. Although the origins of stress for medical students have their parallel in professional schools of all kinds, those programs will not be examined here for several reasons. Firstly, my experience has been primarily with medical education, and secondly, medicine and medical education are presently experiencing troublesome times which exacerbate the intensity of the strain.[3,10,22] An examination of the origins of pathological reactions to stress is important for both students and educators who should all be concerned with obviating needless wastes of time, energy and life. The origins ultimately may be resistant to change, but identifying and dealing with the troubled student may be possible.

There is ample evidence that stress related problems exist in medical education and for medical practitioners later in life. In the academic year 1976-1977 the attrition rate for medical students, defined as those students leaving the pursuit of an M.D. degree, was 1.43% for all classes. In the first year 2.3% quit school; in the intermediate years and final year the percentages were 1.42 and 1.0 respectively.[14] A study of a cohort of The Johns Hopkins Medical School students from 1948 through 1964 found that 6.7% of all men and women left prior to graduation; two-thirds left during the first year and another 21% had quit by the end of the second year.[20] One paper claimed that close to 10% of students drop out of school and that close to "20 to 30% of the student body comes to the attention of the staff physicians."[4] I believe that his estimate of drop-outs is exaggerated since the rate of withdrawals for all reasons has been around 2% since 1968.[4]

Physicians seem to show problems with stress in later life, and this has important implications for medical selection and educational processes. *Medical World News* claims that as many as 10% of American physicians are impaired by alcohol abuse, drug addiction or emotional difficulties which may have had their roots in their medical training.[3] Approximately 100 physicians commit suicide yearly, with the rates highest in psychiatry, anesthesiology and otolaryngology.[13] Doctors have been described as being "highly prone" to midlife crises manifest by marital discord, suicide and substance abuse.[6] Physician divorce rates are highest in the age bracket between 35 and 44, with orthopedic surgeons, psychiatrists and dermatologists having the highest rate.[10,14] However, physicians do not lead professional groups in their rates of divorce.[12] Stress, therefore, is a constant stimulus for the medical student and the physician alike. The rigors of the schooling and career continue unabated for the life of the student-physician.

The first year of medical school presents special challenges to the student, and how the student faces those pressures may serve as an indicator of how he will adapt to the multitudes of stresses in a medical career.[7,19,20] The transition from premedicine to medical school is the most troublesome period of medical education. A higher percentage of first year students drop out and a higher percentage of first year students drop-back to repeat a year than in any other class of medical students.[20] Boyle and Coombs found that the main source of anxiety was the inability to absorb all materials completely (as the students were

Submitted for the Third Annual Carroll H. Luhr, M.D., Memorial Health Essay Contest, University of Louisville School of Medicine

probably accustomed to doing as undergraduates).[4] Fear of getting bad grades, fear of error in diagnosis or prescription, limited recreational and social outlets, deferred sexuality, loneliness and exposure to the cadaver for the first time were listed in decreasing importance as sources of anxiety. By the time their study was complete three students had quit and 40% "had admitted that they had entertained the idea of quitting—some, of course, more seriously than others."[4]

The mental stress of medical students has been well documented, but a few subjective examples help to see the emotional component. One freshman at the University of Louisville School of Medicine wrote the following one dark day in February:[24]

> . . . everyman arrives, hesitant,
> at the juncture
> where he is forced to admit
> "I never felt more less than now"
> and anxious, his heart flutters
> and so
> the sudden stifling of everyman
> when pressed, confined, relegated to
> trifles,
> suffocating, he rises
> to breathe somewhere, out
> at the periphery
> (to what? sniff desire?)

Another colleague expressed his discontent earlier in the year with the following account:

> Studying is like trying to cut a log that grows from the inside out as you chop . . . One factor is the loss of identity, another the sense of hopelessness when studying for tests you know will blow you away, and also the loss of esteem from being BMOC to little man in a big world. Almost everyday you can tell who has been up most of the night . . . their heads are usually down searching for answers in the yellowing tiles.

Another student expressed a common realization of the basic idealistic freshman medical student: "Sitting in class listening to professors professing seems the farthest thing from the ultimate goal: working with patients."[15] This shear between what the student expects and what he gets can be agonizing. Every student must make adjustments to the new situation; changing habits learned in premedicine or earlier can be demanding.

Premedical training may be part of the problem. Premedicine often does not offer students a realistic picture of medical education nor of medicine as a career. Premedical advising generally is inadequate because "there are too few faculty advisers with first hand knowledge of the immediate educational steps and possible career options" such that "universities have been unable to provide timely and effective advising and counseling services to a large fraction of students interested in a career in the health professions."[16] The scarcity of knowledgeable advisers is a serious problem. I agree with John Bruhn who says that "the successful outcomes of career choices is seldom due to an effective advisory system."[5] I am not blaming the educational institution for medical student anxieties and concomitant problems, but a more informative and realistic presentation of medicine to interested students might be helpful.

Noncognitive factors in premedical students tend to be ignored. Although stereotyping does not imply causality or correlation, the premedical student is typically viewed as being "excessively hard-working, competitive and grade conscious; narrow in interests; less sociable than others; and more interested in money or prestige. On the positive side, premeds are described as having a sense of direction and being highly motivated."[9] the premeds perceived themselves this way and also saw themselves as lower in creativity, originality and writing ability. The authors found no correlation between this negative view of premeds and anxiety about performance since only 25% of the students thought the pressure was troublesome.[9] Premedical students are accustomed to working under pressure and those who do get accepted to medical school are quite successful at performing in their environment. The problem occurs when the inflexible, successful, idealistic student encounters a new environment which challenges his ability to develop new study techniques, to accept less success through grades and to swallow a little realism. For some that is too large of a dose at once.

Most freshman medical students react to the stress with anxiety; some adapt and thereby direct their anxieties to beneficial uses, whereas others will continue to despair and perhaps fail. The failure rate or withdrawal for poor academic record for freshmen in 1976-1977 was 0.45% of all classes (262 students).[14] This figure does not include withdrawals for reasons other than this or advanced study reasons; those other withdrawals amounted to 687 students. In the Johns Hopkins Study by Caroline Bedell Thomas, 89 students left medical school. Two-thirds left because of dismissal for academic reasons, and 9% (8 students) were hospitalized for mental illness. She commented that "The interplay of academic, family, financial and emotional stresses for each individual was unusually complex."[20] Also, in 1976-1977 the number of students dropping back to repeat was 326 freshman (2.1%) and 553 (1.3%) in all other classes.[14] Thomas et al found that one-third of the drop-backs did so because of academic reasons. Schwartz and Snow analyzed seven students who had failed and reasonably assumed that the failures were of psychiatric origin; they found that ironically "They failed, not from lack of motivation, but because they were too serious."[17]

The destructive nature of this anxiety and failure, which seems to seriously effect some students but not others, has been called the Academic Frustration Syndrome (AFS).[8] Why do some fail and others do not, when all were successful as undergraduates? Why do some adjust easily to medical school and others do not? Schwartz and Snow offered the following thesis:

> What they take too seriously is the process of becoming a physician, which can create major upheaval since the metamorphosis causes major changes in one's self image. These people seek to adhere rigidly to their current notions about themselves and tenaciously cling to their previous self-image in the face of enormous insult imposed by attending medical school and the process of becoming something new. Survival in medical school seems to require relatively flexible defenses and the rigid character structure that may have been adequate as an undergraduate, perhaps even helpful in creating an aura of excellence, is sorely battered in medical school.[17]

On the basis of personal experience I would intuitively agree that flexibility and adaptability are important assets when making the transition. This change in outlook and habit can be seen in the differences between the freshmen and sophomores. Freshman, according to Weinstein and Gipple, "to a greater extent than sophomores report that they (a) must reread several times, (b) miss important lecture points, (c) waste time or wait for the right 'mood' before studying . . ."[23] The mental adjustment may be one reason that fewer sophomores and upperclassmen drop out or quit for academic reasons. Also, the fact that most drop-back students go on to finish school and obtain their M.D. degree supports Schwartz and Snow's hypothesis.

Grover and Tessier studied the student encumbered with debilitating anxiety with the intention of finding out if these individuals could be found to be psychologically motivated by an internal locus of control or if by an external locus of control.[8] They theorized on the basis of other studies that a student with an internal locus of control would better seek alternative means of studying and show more stability than those with an external locus of control. They correspondingly predicted that the student with an external locus of control would show more debilitating rather than facilitating anxiety. Instead they found that the individual's level of facilitating and debilitating anxiety . . . play a more important role in determining whether a student copes with academic frustrations or enters the AFS."[8] Disregarding the possibility that some less capable students made their way through the admissions process, which is not an infallible procedure, many capable students have been caught up in a vicious cycle of anxiety and ended up failing a few classes, yet after relaxing and reorganizing have gone on to do well. Thus, they did not fail because of insufficient motivation but because their motivation was misdirected.[17]

The origins of this anxiety may be precipitated by the immediate stressors available in the medical school environment, but they may represent

a collection of influences. Premedical students have a tendency toward certain personality traits which are important for success in premedicine, and those accepted carry those traits into school with them, perhaps unaware that a new monster is to be encountered. For some students their personalities cannot handle the inconsistencies and schizophregenic character of medical education.[17] Their methods of dealing with the world probably are due to parental and genetic influences, but until that issue is resolved the best we can do is try to pinpoint the areas creating the most stress.

The challenges of medical school probably will not subside since our capitalistic society dictates that we have some means of distinguishing between those who are capable and those who are not meeting minimum standards.[8,11] A person's inclinations may be based upon a variety of factors reaching into childhood, so the problem of a student experiencing AFS can only be dealt with after the fact. Preliminary and brief psychological testing might be helpful. Alleviating "Diseases of the Curriculum" would be helpful, but it seems sometimes that medical education becomes more of a "crazy situation" yearly due to new demands made upon the medical profession.[1,21] Mechanisms for helping students to adjust their study techniques would be beneficial. The availability of "free and independent" counseling, as we have here at the University of Louisville, is imperative so that students will not have to worry about that information being used by the university. Premedical counseling should be improved and students should be encouraged to examine carefully the realities of medical school and medical careers independent of previous inaccurate misconceptions. Students in academic trouble should be given support and help early. The relativity of "success" among a very capable group of students should be emphasized. Further studies should be done to determine the most reliable way to distinguish which students might be having trouble handling the stress.

The stresses will be around forever; only by diagnosis and work can we hope to obviate unnecessary wastes of energy in school and prevent other manifestations of personality conflicts in later life. Helping students realize the importance of having a flexible attitude and adjusting to stress may be just as valuable for their lives as the medical education is for their careers.

References 1. Abrahamson S: Diseases of the Curriculum. *J of Med Ed* vol. 53: December, 1978, pp. 951-957. 2. Baird L: The Characteristics of Medical Students and Their Views of the First Year. *J of Med Ed* vol. 50: December, 1975, pp. 1092-1099. 3. Bloom M: Impaired Physicians: Medicine Bites the Bullet. *Medical World News,* July 24, 1978, pp. 40-51. 4. Boyle B P, and Coombs H: Personality Profiles Related to Emotional Stress in the Initial Year of Medical Training. *J of Med Ed* vol. 46: October, 1971, pp. 882-888. 5. Bruhn J G: The Ills of Premedical Advising. *J of Med Ed* vol. 52: August, 1977, pp. 676-678. 6. Doctors Called Highly Prone to Midlife Crisis. *Medical World News* June 25, 1979, p. 33. 7. Epstein L C, et al: Clinical Prediction of Physician Suicide Based on Medical Student Data. *The Journal of Nervous and Mental Diseases* vol. 156, no. 1, 1973, pp. 20-29. 8. Grover P L, and Tessier K E: Diagnosis and Treatment of Academic Frustration Syndrome. *J of Med Ed* vol. 53: September, 1978, pp. 734-740. 9. Hackman J D, et al: The Premed Stereotype. *J of Med Ed* vol. 54: April, 1979, pp. 308-313. 10. Manber M M: Being a Doctor May Be Hazardous to Your Health. *Medical World News* August 20, 1979, pp. 68-78. 11. Mattson D E: Criterion-Related Measures in Education. *J of Med Ed* vol: 46: March, 1971, pp. 185-189. 12. *MD Magazine* Divorce March, 1977, p. 115. 13. *MD Magazine* Diseases of Dispair. September, 1977, p. 56. 14. Medical Education in the United States, 1976-1977. *JAMA* 77th Annual Report, December 26, 1977. 15. Oates C: *Traction* Published by the University of Louisville School of Medicine. vol. 13; no. 2, Spring, 1976, p. 30. 16. The Rochester Plan The University of Rochester, Rochester, NY, January 20, 1976, p. 1. 17. Schwartz B J, and Snow L H: On Getting Kicked Out of Medical School *Am J of Psychotherapy* vol. 28, 1974, pp. 574-583. 18. Stanton M: Life of Stress. *Upstate Magazine,* Sunday, February 18, 1979, pp. 12-18. 19. Thomas C B: Suicide Among Us: II. Habits of Nervous Tension as Potential Predictors. *The Johns Hopkins Medical Journal* vol. 129: October, 1971, pp. 190-201. 20. Thomas C B: What Becomes of Medical Students: The Dark Side. *The Johns Hopkins Medical Journal* vol. 138: no. 5, May, 1976, pp. 185-195. 21. *Tractions* Published by the University of Louisville School of Medicine. Fall, 1979, vol. 15, no. 1. 22. America's Doctors: A Profession in Trouble. *U.S. News & World Reports,* October 17, 1977, pp. 50-58. 23.Weinstein P, Gripple C: The Relationship of Study Skills to Achievement in the First Two Years of Medical School. *J of Med Ed* vol. 49: September, 1974, pp. 902-905. 24. Wolf B: Everyman. Unpublished poem. University of Louisville School of Medicine.

EDITOR'S NOTE

There is stress in medical school for a very good reason. Simply stated, taking care of sick people in a responsible manner is and will always be stress of the highest order. Reaction under stress must be guaged in medical school as surely as performance in the basic sciences. Both contribute to the preparation of the physician.



SOME MALPRACTICE INSURANCE POLICIES SETTLE FOR JUST ANYBODY.

Today, all too many people are finding it easy to sue. And unfortunately, all too many insurance companies are finding it easier on themselves to settle. Quickly and out of court. Little thought is given to defending your reputation.

In fact, your insurance company may not even give you an option to fight a claim. Or if you do have that option, you can be hit with a costly penalty for going to court.

And there are other ways your insurance company may not stand behind you. For instance, chances are to save costs and time your company will use a claims adjuster to handle your case. Not a lawyer.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working hard for doctors. We know the strong coverage and knowledgeable service physicians need from their liability insurance. And because we specialize in this one field, we can offer a superior policy at a realistic premium. Premiums based on actual costs in your state.

Don't settle for just any insurance. Get a policy that really stands behind you. Contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas phone 1-800-231-2615.

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® C IV

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summery

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equegesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness with uneventful recovery. However on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® ©IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

Copyright © 1980, Wyeth Laboratories
All rights reserved

Wyeth Laboratories
Philadelphia, Pa 19101

Cytology of Serous Effusion

Cytologic examination of the serous effusion is considered to be a laboratory test. The specimen is obtained and sent to the laboratory for cell count, biochemical determination and cytologic examination. These cytologic studies address the presence or absence of cancer cells or bacteria, but lack clinical correlation which would improve the accuracy of this procedure. We have examined a large number of serous effusions cytologically and interpreted our results with close clinical correlation. We have noted that this clinical cytologic-correlative approach is extremely valuable in evaluating patients with serous effusions.

We shall present several illustrative cases as well as discuss some of the findings of our cytologic studies.

Case Presentation

Case 1: A 53-year-old black man was admitted with a history of chronic ethanol abuse, pleurisy and weight loss. Physical examination revealed a febrile, cachetic man in mild distress with pleural effusion. Laboratory data showed: hemoglobin 7.3gms%, sedimentation rate 90mm/hr, white blood count (WBC) 6,300/mm^3 with 84% neutrophils, 16% lymphocytes, LDH of 250 IU and protein of 5.6gms%. Thoracentesis yielded a cloudy, yellow fluid with a glucose of 53mg%, LDH 131 IU and protein of 4.0gms%. The WBC was 1,200/mm^3 with 81% neutrophils and 19% lymphocytes. LE cells were present in the effusion sediment (Figure 1). The patient continued to have persistent fever which was treated with antibiotics without response. Persistent renal failure requiring dialysis developed. His antinuclear antibody titer was 1:640 with a homogenous pattern and L.E. cells were seen in the peripheral blood smear. The patient manifested a dramatic response to prednisone therapy.

Case 2: A 47-year-old white man underwent radiotherapy for squamous cell carcinoma of the right hilum in December of 1978. He was well until September of 1979 when he was hospitalized for increased shortness of breath. Physical examination revealed dullness of the right chest with no shift of the mediastinal structure. Laboratory data revealed a WBC of 7,600/mm^3 with a normal differential. The LDH was 236 IU and the protein was 7.5gms%. Thoracentesis showed a serosanguinous pleural fluid with a protein content of 3.4gms%, LDH 860 IU, white blood cells 20,000/mm^3 with 8% neutrophils, 22% lymphocytes and 70% mesothelial cells and unidentified cells. Evaluation of the airdried smears from the pleural fluid showed cancer cells. The cell block was positive for squamous cell carcinoma. Closed tube thoracostomy was performed with drainage of 6,000cc of fluid. He progressed rapidly downhill and died within four days.

Case 3: A 61-year-old white man with a melanoma with metastases to the brain presented with fever, chills with rigors, nausea, vomiting and signs of right hemiparesis. The patient had received chemotherapy for melanoma prior to this admission. Physical examination revealed the blood pressure to be 160/82mmHg, pulse 100/min, respirations 20/min and temperature 99.2°F. The patient was an acutely and chronically ill man with disseminated melanoma, dehydration and right hemiparesis. The chest was clear.

From the Veterans Administration Medical Center Medical Service and the University of Louisville Department of Medicine

Laboratory data revealed a hemoglobin of 11.5gms%, hematocrit 34%, WBC 17,000/mm^3 with 69% neutrophils, 9% bands, 16% lymphocytes, 4% monocytes and 2% eosinophils. The sedimentation rate was 45mm/hr. The admission chest x-ray was normal. Five days after admission, dyspnea developed, a right pleural effusion was noted, and a thoracentesis was performed. Pleural fluid revealed a WBC of 2,450/mm^3 with 85% lymphocytes and 15% neutrophils. The specific gravity was 1.020. Air-dried smears of the effusion sediment disclosed necrotic background material with numerous bacilli and cocci noted on smear as well as large refractile organisms, 4-6 microns in diameter, with capsules which were confirmed by culture to be cryptococci (Figure 2). Closed tube thoracostomy was performed but the patient died on the sixth hospital day.

Discussion

In each of these three cases, a definitive diagnostic impression was obtained immediately after the effusion sediment was examined. In each instance, the plan for further studies and management was radically altered. On other occasions, however, information from cytologic examination of the effusions may not be as definitive but still accurate and useful when the smears are interpreted along with adequate clinical data.

As clinicians, you are best equipped to study the serous effusion from your patients. The general approach is simple and consists of: 1) receiving and preparing specimens for cytologic study, 2) evaluation of the patient's clinical state, 3) interpretation of the effusion cytology in light of the clinical findings, 4) using this information to direct further workups and 5) review of the outcome of the patient to confirm your cytologic findings.

Preparation of smears: Five milliliters of serous effusion is collected in a glass tube containing ethylene-diamine tetra-acetate (EDTA) as the anticoagulant and used for the clinical cytologic examination.[1] Separate aliquots of fluid are sub-

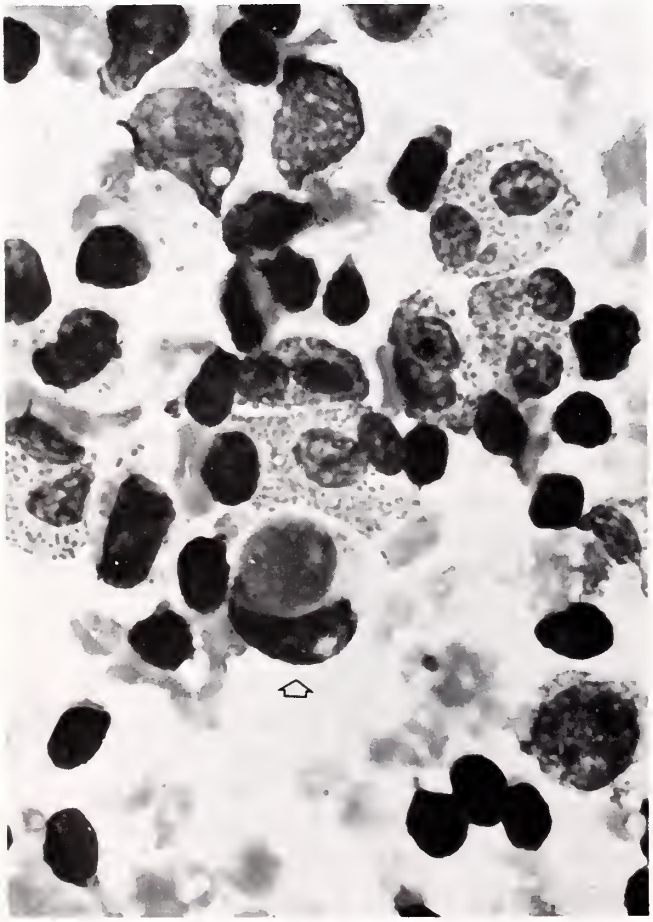


Fig. 1: Smear of effusion sediment showing hypercellularity, lymphocytosis, eosinophilia and one L.E. cell (arrow). (Wright-Giemsa stain X 1320).

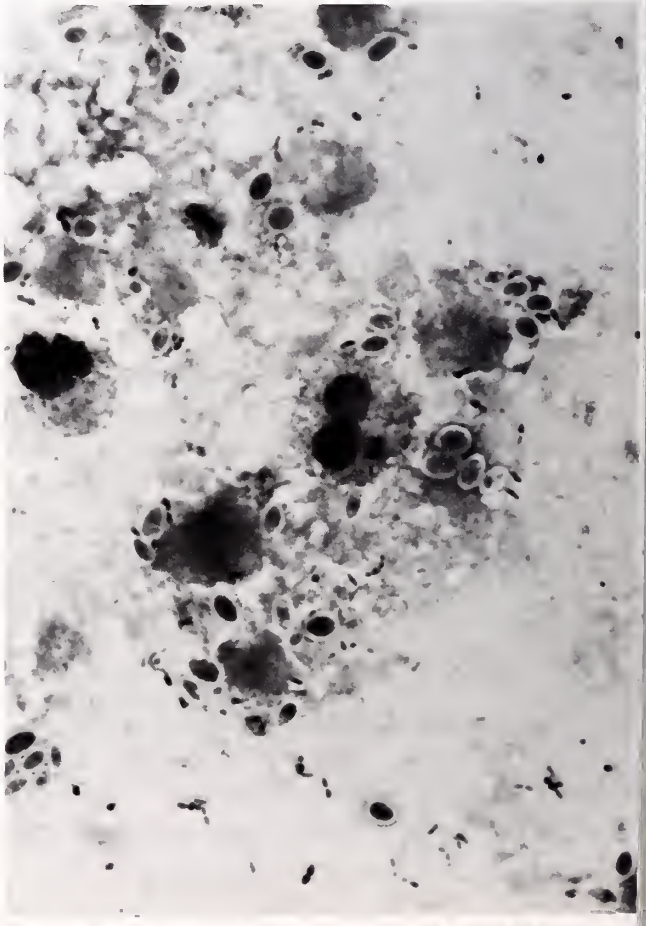


Fig. 2: Pleural effusion sediment showing cell degeneration and tissue necrosis with many bacteria and fungi (Wright-Giemsa stain X 1320).

mitted to the laboratory for routine cell counts, cytology, bacterial culture and biochemical examination. The gross characteristics of the fluid (Table I) are observed and the specimen is centrifuged at 1500 rpm for five minutes and the sediment is quantitated (scant, moderate or heavy). The supernatant is discarded and the sediment is used to prepare air-dried smears which are stained by the Wright-Giemsa method (Table II). It is important to prepare the smears quickly because prolonged incubation in EDTA will alter cellular morphology and induce artifacts making interpretation difficult and confusing. These smears, once prepared, can be kept indefinitely until staining can be accomplished. A critical comparison between the air-dried method and the Papanicolaou method is shown in Table III. Although cytologic examination of air-dried smears stained with the Wright-Giemsa method is prevalent in the European countries, it is seldom utilized in this country. In general, it can be said there is less cellular shrinkage, better cytoplasmic detail and comparable nuclear detail in the Romanowsky technique, however, there may be difficulty in interpretation of the material which contains necrotic debris.[1] It should be pointed out that these two methods are complimentary to each other, and it is our belief that a combination of these two techniques should reduce the false negative rate of the routine cytologic study.

Evaluation of the patient clinically: It is this area in which the clinician, with direct responsibility for the patient, has the advantage over those who do not have the first hand clinical information. As with any evaluation, the history and physical provide important clues to the etiology of the serous effusion; i.e., a smoker with hemoptysis and weight loss is likely to have carcinoma of the lung. Routine laboratory studies are performed and are evaluated in light of the history and physical findings. Physical properties of the effusion such as color, specific gravity, odor, pH, coagulability and cell count should be determined. Chemical characteristics depicted by total protein, LDH, amylase, glucose and occasionally lipids are reviewed. By using these physical and chemical characteristics of the effusion,

TABLE I
GROSS APPEARANCE OF EFFUSIONS

Bloody	Pulmonary infarction Malignancies Tuberculosis Fresh bleeding
Serosanguinous	Exudate
Pale	Transudate
Greenish	Tuberculosis
Turbid	Suppuration Eosinophilia
Chylous	Lymphatic obstruction Severe tissue breakdown
Other (i.e. Gold Paint)	High cholesterol content

TABLE II
WRIGHT-GIEMSA METHOD

1. Wright stain to air-dried smears for 3 minutes.
2. Add equal volume of water to Wright stain, mix well by gentle blowing, 5 minutes.
3. Wash with water.
4. Add dilute Giemsa stain (stain: water = 1:10-20) to smear for 10-20 minutes.
5. Wash with water, dry
6. Mount with synthetic resin and examine.

TABLE III
COMPARISON OF CYTOLOGIC METHODS*
(Papanicolaou's vs. Romanowsky's)

	Papanicolaou's	Romanowsky's (air-dried smears)
Shrinkage	↑↑	minimal
Loss of cells during staining	↑↑	minimal
	nucleus	nucleus, cytoplasm & surroundings
Identification of Malignant Cells		
Criteria	well established	well established
In smears without tissue necrosis	easy	easy
In smears with tissue necrosis	not difficult	may be difficult
Changes in cytoplasm	not well appreciated	easily seen (i.e., color granules, bacteria)
Hemopoietic cells	less well appreciated	easily identified
Time required	> 30 minutes	< 30 minutes

*Modified from; Yam, L.T.: Amer. J. Clin. Path. *47*:797, 1966

a division between transudate and exudate often can be made (Tables IV and V).

Interpretation of the cytologic smears: Interpretation of the cytologic smear is simple to perform for the clinician who is familiar with morphology of blood cells since most of the cells present in the effusion are also seen in the blood. However, there are cells shed from the serous lining that are unfamiliar to clinicians and therefore deserve special comment. The basophilic mesothelial cells are large with deep blue staining cytoplasm and an eccentric nucleus. The nucleus has an open chromatin pattern and often a nucleolus. The number of these cells present in serous effusions is variable and depends on the pathologic process. They may be multi-nucleated and appear bizarre. These cells may undergo degeneration forming "balloon cells" and macrophages (Figure 3). Once the ability to recognize the morphology of these cells is mastered, accurate interpretation of the smears may begin. The clinician armed with the clinical history and physical findings of the patient modified by the physical and chemical characteristics of the effusion[2] is well prepared to render an intelligent interpretation of the effusion sediment using the following simple approach.

Microscopic examination of the sediment: We begin to evaluate the effusion sediment with the following thought in mind: "high power objective, low power mind, low power objective, high power mind." Employing this adage we begin to observe the cytologic smear by using the 4X or 10X power to assess the cellularity of the smear. As a generalization, the hypocellular effusions are characteristic of a transudative process (Figure 4) while hypercellular fluids are exudative in character (Figure 5). Moderately cellular fluids may either be transudative or exudative and require further information for classification. This serves as a crude estimate of the transudative and exudative nature of the fluid but may prove to be in error when two coexisting processes contribute to the effusion. Such an error could occur in a patient with congestive heart failure or venous obstruction which produces the typical transudative fluid but also has oat cell carcinoma of the lung. In this case, examination of the effusion sediment will demonstrate hypocellularity with carcinomatous cells in the fluid.

Following examination of the cellularity of the smear, attention is turned to the cellular pattern

TABLE IV
PHYSICAL PROPERTIES OF EXUDATIVE EFFUSIONS

Specific gravity:	> 1.016
Color:	*not* pale & clear
Order:	fetid (infected)
pH:	< 7.20
Coagulability:	good
Leukocyte count:	> 1000/mm^3

TABLE V
CHEMICAL PROPERTIES OF EXUDATIVE EFFUSIONS*

1.	Protein in effusion / Protein in serum	> 0.5
2.	LDH in effusion / LDH in serum	> 0.6

*Light, R.W.: Med. Clin. N. Amer. *61*:1339, 1977

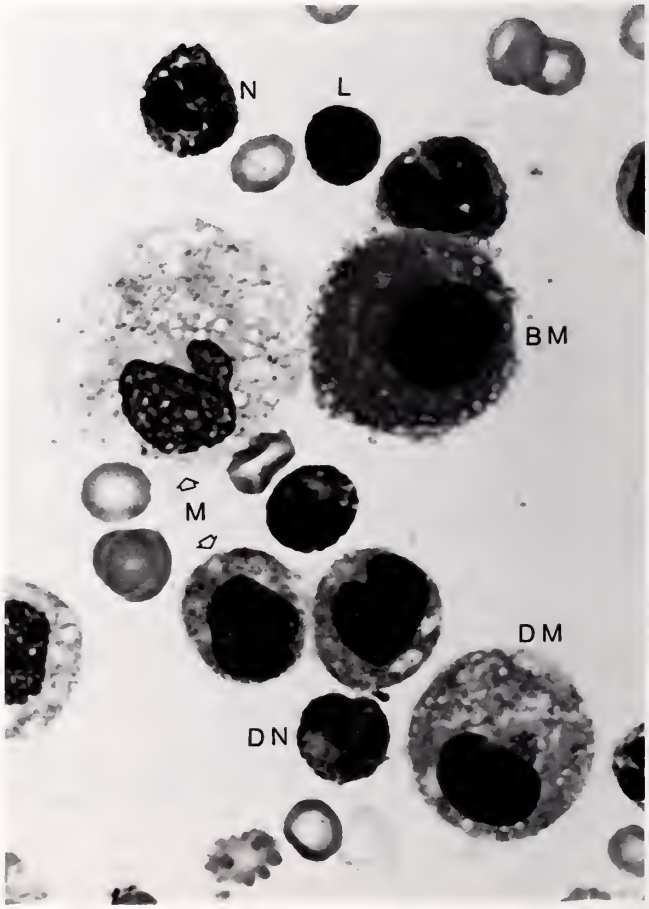


Fig. 3: Smear of effusion sediment showing cells commonly present in effusions: Basophilic mesothelial cell (B.M.), degenerated mesothelial cell (D.M.), macrophages (M), lymphocytes (L), neutrophil (N) and degenerated neutrophils (D.N.). (Wright-Giemsa stain X 1320).

and morphology of each individual cell by using the 10X and 40X objective.

Classification of the cellular pattern as pleomorphic or monotonous is determined by the predominent cell type in the serous fluid; e.g., lymphocytes, neutrophils, mesothelial cells or macrophages. A pleomorphic pattern indicates a mixture of these cellular constituents. For example, inflammatory reactions present within the serous cavity for several days present a pattern of neutrophils, lymphocytes and degenerating mesothelial cells. A monotonous pattern is exemplified by malignant lymphoma involving the serous cavity presenting a majority of lymphocytes in the effusion.

Recognition of specific cellular patterns and individual cellular morphology is significant to the differential diagnosis of serous effusions.[3-5] For example: a hypercellular effusion composed of a majority of mature lymphocytes and normal numbers of mesothelial cells is suggestive of carcinoma. A diligent search for malignant cells and further directed investigation should be undertaken if this pattern and cell morphology is observed. A hypercellular effusion consisting of mature lymphocytes and reduced mesothelial cells defines a diagnostic triad that is highly suspicious of tuberculosis (Figure 5). This triad should direct the physician to request appropriate cultures; and a pleural biopsy in an attempt to prove or disprove acid fast infection. Lastly, a hypercellular effusion composed of morphologically abnormal lymphocytes; e.g., absence of cytoplasm, folding of the nuclear membrane, clefted nuclei and prominent nucleoli suggests malignant lymphomatous involvement of the serous cavity as the etiology of the effusion.

Also, in evaluating effusion sediments, it must be noted that the sediment in the serous cavity is in a dynamic state and our samples are obtained at one point in the spectrum of the disease. These findings may change as the example of pulmonary emboli will show. Initially, the effusion is bloody and consists of neutrophils without toxic

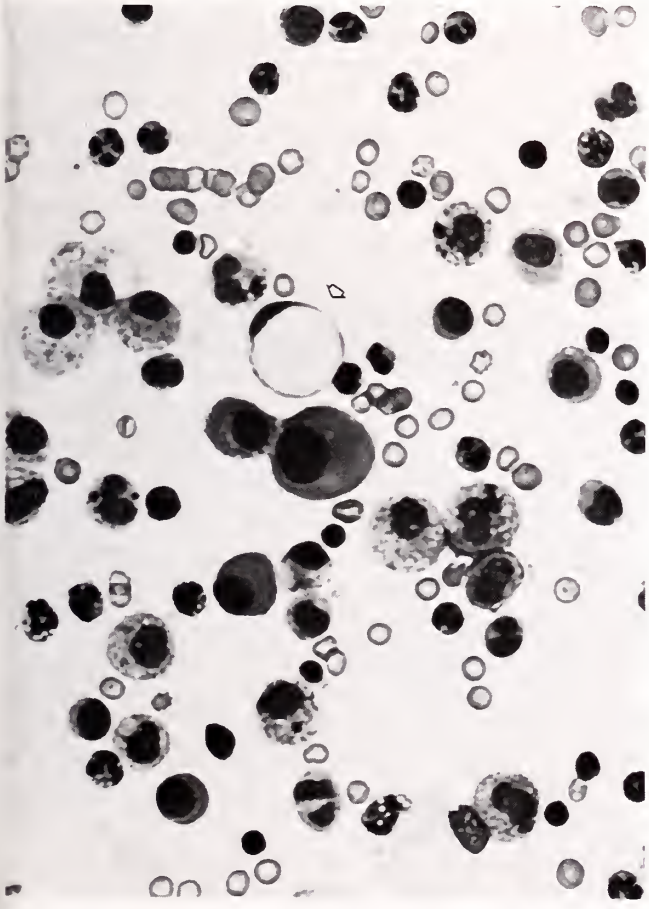


Fig. 4: Pleural effusion sediment showing hypocellularity with a mixed cellular pattern. Arrow shows a balloon cell (see text). (Wright-Giemsa stain X 520).

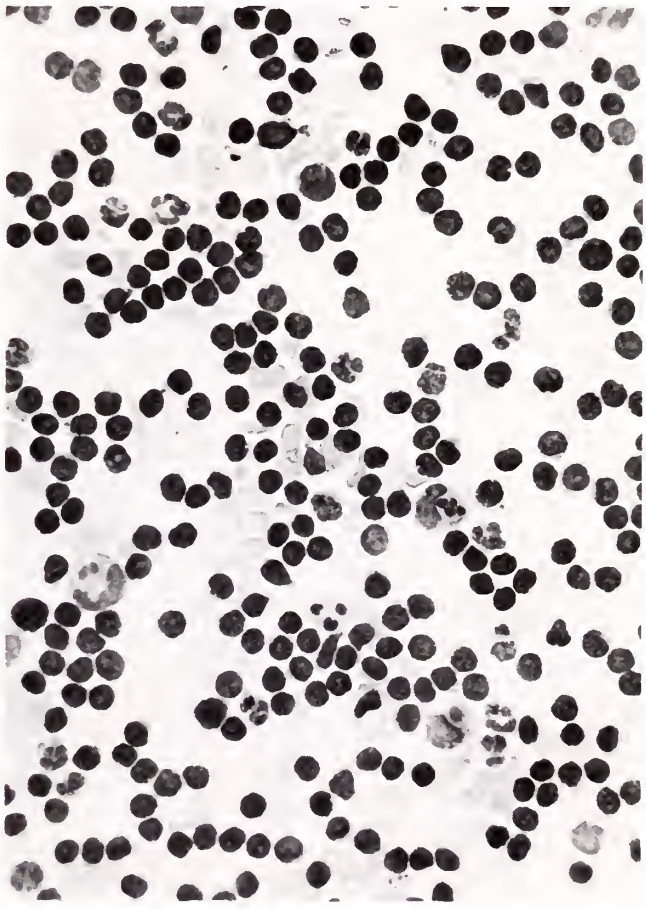


Fig. 5: Pleural effusion sediment showing hypercellularity, lymphocytosis and absence of basophilic mesothelial cells, highly suggestive of tuberculosis. (Wright-Giemsa X 520).

changes. Several days after the acute event, increased mesothelial cells, decreased neutrophils and increased lymphocytes are noted. Mesothelial cells are seen to actively phagocitize erythrocytes. Two to three weeks after the initial event profound lymphyocytosis, eosinophilia and mesotheliosis are seen and suggest resolution of the effusion.[6]

With respect to inflammatory conditions, hypercellularity with neutrophilia is predominant (Figure 6). Neutrophils may exhibit toxic changes which are demonstrated by vacuolization of the cytoplasm and pyknosis of nuclei. These changes may be mild, moderate or severe and serve as an index of the severity of this inflammatory process. Acute inflammatory changes within the pleural space are demonstrated by hypercellularity and acute polymorphonuclear leukocyte response with mild to moderate toxic changes. With increasing severity, neutrophilia is again predominant but moderate to severe toxic changes with a reduced number of mesothelial cells are noted. This particular picture coupled with the presence of bacteria is characteristic of an empyema or peritonitis. In evaluating an inflammatory process within the serous cavities, the Romanowsky method using Wright-Giemsa stain is well suited to the identification of microbiological organisms which can be confirmed by a Gram stain of the effusion sediment.

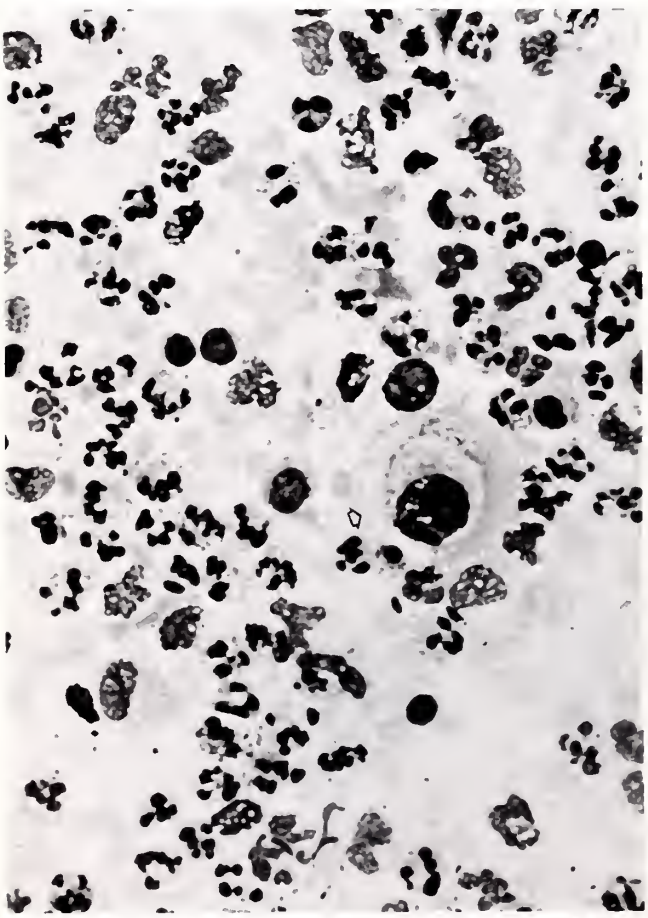


Fig. 6: Pleural effusion from a patient with obstructive pneumonitis and cancer, showing hypercellularity, neutrophilia with severe degenerative changes and one malignant cell (arrow). (Wright-Giemsa stain X 520).

The finding of malignant cells in the serous fluid is not difficult (Figure 6) when one adopts the simplistic approach that any cell other than the normal formed elements in the blood, mesothelial cells and macrophages are foreign and are therefore neoplastic until proven otherwise. It is not the duty of the clinician to diagnose malignancy. However, if the cytologic study provides enough information to suggest malignancy, it may indicate the need for further invasive measures in determining the etiology of the effusion.

With respect to hypocellular fluids, these generally have a mixed cell pattern with lymphocytes, polymorphonuclear leukocytes, and degenerative mesothelial cells (Figure 3). These are usually found in congestive heart failure and alcoholic liver disease with portal hypertension. However, transudative peritoneal fluids may contain acute inflammatory cell demonstrating toxic changes. This finding is suggestive of an inflammatory process present in the peritoneal cavity.

We have used this combined clinical cytological approach to evaluate a large number of patients with serous effusions. Although we have not completed our follow-up studies in all of our patients, a general impression can be made as follows. In approximately 30% of the cases, a definitive diagnosis can be reached by the cytologic examination alone; in an additional 15 to 20% of the cases, the cytologic examination yielded findings that were highly suspicious of a specific etiology, although not diagnostic. In the other 50% of patients with serous effusions, cytologic examination of the effusion sediment can provide information that eliminates various etiologies and directs investigations in an attempt to define the etiology more precisely.

We believe that the use of this clinical-cytologic approach to examine the air-dried smears is simple and best performed by the clinician caring for the patient with a serous effusion. Interpretation

requires a minimal amount of time and the ability to recognize the various cellular details of the cell patterns will provide the clinician with a differential diagnosis of effusion sediments and should compliment routine cytologic examinations. This clinical-cytologic approach should be considered as part of the work-up in patients with serous effusions.

Acknowledgement

To Mr. Anthony Janckila, Mr. Mark Howze, Mrs. Donna Jones and Mrs. Sara Fox for their assistance. This study acknowledges the contributions of the many house officers of the Medical Service of the University of Louisville affiliated hospitals, without whose support, cooperation and mutual stimulation, this study could not have been accomplished.

References 1.Yam LT: A Rapid Method of Preparing Smears of Effusions and Solid Mass Aspirates for Cytologic Diagnosis. *Am J Clin Path* 47:797, 1967. 2. Light RW: Pleural Effusion. *Med Clin N Amer* 61(6):1339, 1977. 3. Yam LT: Diagnostic Significance of Lymphocytes in Pleural Effusion. *Ann Intern Med* 66:972. 1967. 4. Spriggs AI and Boddington MM: The Cytology of Effusions. 2nd Edition. New York, Grune and Stratton Inc., 1968. 5. Light RW, Erozan YS and Ball WC, Jr: Cells in Pleural Fluid: Their Value in Differential Diagnosis: *Arch Intern Med* 132:854, 1973. 6. Winkler CF and Yam LT: Cytologic Changes of Pleural Effusion in Pulmonary Embolism. *Arch Intern Med* 136:1195, 1976.

CHARLES F. WINKLER, M.D.
LAWRENCE D. LOEHLE, M.D.
BRIAN VANDERBOEGH, M.D.
LUNG T. YAM, M.D.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Blue Cross
Blue Shield
Delta Dental
of Kentucky

We want you to stay healthy.



There are times to exercise

and times to exercise caution.

Regular exercise is vital to building and maintaining a healthy, fit body. It improves our cardiovascular system. It helps us control weight. It keeps us flexible. It makes us feel and look better.

But, like most good things, exercise can be overdone, or done at the wrong time. For example, physical activity during extremely hot or extremely cold temperatures is risky. To be safe, don't exercise when the temperature is above 90°F. or below 15°F.

Be especially careful of hard seasonal chores such as digging a garden, shoveling snow, or doing yard work in the hot sun. All put a severe strain on the heart. If you can't avoid these tasks, then at least do them sensibly. Work slowly. Take frequent rest breaks. And exercise caution.

Exercising to stay fit is something we can all do. And so is exercising good judgment. If you're over 35, and out of shape, don't start an exercise program without your doctor's approval.

At Blue Cross and Blue Shield of Kentucky, we're concerned about the rise in the cost of health care. By working to stay healthier, we can all do our part in helping to hold down these costs.

Write us for information on enrolling in quality health care prepayment plans. Blue Cross and Blue Shield and Delta Dental of Kentucky, 9901 Linn Station Road, Louisville, KY 40223.

*Registered Service Marks of the Blue Cross Association • *Registered Service Marks of the Blue Shield Association • **Delta Dental Plans Association.

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1 Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

or the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.





Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8—5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10—20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 m elemental potassium. The usual preventative dose of potas 20 mEq per day while therapeutic doses range from 30 100 mEq per day. Because of the potential for gastroint irritation, undiluted large single doses (30 ml or more) or are to be avoided.

Deviations from this schedule may be indicated, since no a total daily dose can be defined, but must be governed b observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a pr tion.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the fo ingredients:

Pentylenetetrazol	
Niacin	
Vitamin B-1	
Vitamin B-2	
Vitamin B-6	
Vitamin B-12	
Choline	
Inositol	
Manganese (as Manganese Sulfate)	
Magnesium (as Magnesium Sulfate)	
Zinc (as Zinc Sulfate)	
Iron (as Ferric Pyrophosphate, Soluble)	
Alcohol	

INDICATIONS AND USAGE: SU-TON contains pentylene which may be helpful in the older patient as an analeptu when mental confusion and memory defects are present. also contains vitamins, trace minerals, and iron, for those who may benefit by preventing the development of a def

CONTRAINDICATIONS: Epilepsy, convulsive disorders or history of sensitivity to any of the listed active ingredients

WARNINGS: The safety of this preparation during pregna lactation has not been established. Use of this drug requi the physician evaluate the potential benefits of the drug any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contra tions to pentylenetetrazol, it should be used with ca epileptic patients or those known to have a low co threshold or a focal brain lesion. Caution should be ex when treating patients with high doses of SU-TON who ha disease. While pentylenetetrazol does not act directly myocardium, the results from central vagal stimulation cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high dos produce toxic symptoms typical of central nervous stimulants, which act on the higher motor centers and th cord. Convulsions resulting from this drug are spontane are not induced by external stimuli. They usually last for minutes and are followed by profound depressi respiratory paralysis. Death has been reported from the in of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been report SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose due principally from overstimulation of the central system and from excessive vasodilatation with re autonomic nervous system imbalance. The symptoms may the following: vomiting, agitation, tremors, hyperreflexia, ing, confusion, hallucinations, headache, hyper tachycardia. Treatment consists of appropriate sup measures. If signs and symptoms are not too severe patient is conscious, gastric evacuation may be accompli induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate tion and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (times a day 20-30 minutes before meals. This drug is not f children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-

CAUTION: Federal law prohibits dispensing without a p tion.

AP-001 5-80 Printed in

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

First Class Permit No. 1563, Shreveport, LA.

Postage will be paid by addressee

BOOTS PHARMACEUTICALS, INC.

Department 0
6540 Line Avenue
Shreveport, LA. 71106

BOOTS PHARMACEUTICA INC.

Shreveport, Louisiana 71106

Pioneers in medicine for the f

EDITORIAL

YET another predicament confronts physicians at this time. New cost containment efforts by organized medicine and government not only encourage but in some cases demand that spending medical dollars be reigned. To make physician time less available and to reduce hospital admissions and sojourns are partial solutions. Even a brief review of recent literature and attendance of any staff meeting will bombard us with this latest "call to arms."

Medical testing in the clinical laboratory and radiology domain consumes a substantial part of the medical dollar. Too often, testing various parameters is a refuge from the more time consuming history taking and complete physical examination. Using urticaria as a model, Jacobsen, et al demonstrated the futility of doing a typical investigational screen and except for sinus films, x-rays were similarly superfluous. When history and physician examination indicted possible causes, the testing was steered often successfully to a significant finding. No doubt this represented a significant saving of the patient's time, endurance and expenses. Recently published algorithms direct the clinician through the modern maze of medical detective work. As is emphasized by both of these examples, there is no better substitute for the careful history and physical examination. Surely it is more satisfying to have diagnosed and managed illness using the lab as an adjunct rather than as a basis.

Despite the threatening sphere of malpractice, we have now the mandate and support for using testing in an efficient and practical manner.

SZS

Jacobsen KW, Branch LB, Nelson HS. Laboratory Tests in Chronic Urticaria. JAMA 243:1644-1646, 1980.

PROFILE



KMA President Robert S. Howell, M.D.

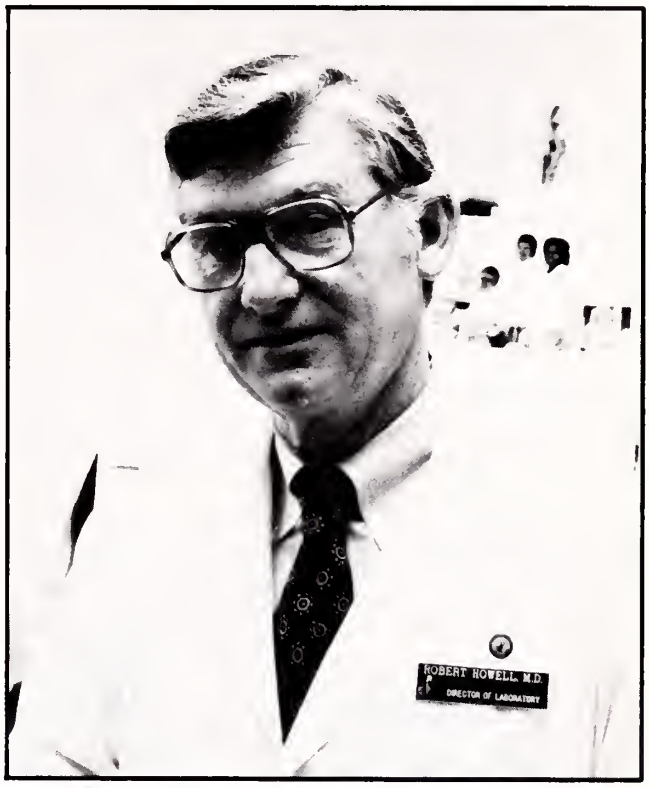
SITTING in his third floor office at Jewish Hospital, Doctor Robert S. Howell is eager to talk about the goals he plans to accomplish as President of KMA. A practicing pathologist, Doctor Howell explains the efforts underway to expand membership and community involvement in KMA.

Trying to increase KMA membership is not a new idea, but Doctor Howell has some new ideas about how this can be accomplished. He wants to coordinate this and other plans through a public relations program. This won't be a "public relations" program in the usual sense but a "Member and Community Education Program" for the profession and to tell the profession's story to the public.

Regardless of a name, Doctor Howell's meaning is clear. "I want the community to realize that organized medicine is a good thing. It is not a self-gratifying organization." Doctor Howell believes that the medical profession actively protects community interests. He cites examples such as voluntary athletic team physicians, volunteer work with the medically handicapped and involvement with legislation to stop inequities in areas such as governmental medical programs.

Calmly, but determined, Doctor Howell leans forward in his chair to make his point. "The deeds of organized medicine often go unrecognized and the only way to communicate with the public is through the organization of doctors in a medical association. Doctors can't do it alone."

"I want the community to realize that organized medicine is a good thing. It is not a self-gratifying organization."



At the same time Doctor Howell wants to send a similar message to the public as that directed to members of KMA. "If you have members believing in a strong organization then there is a wave effect in the community."

One step to facilitate an educational program that Doctor Howell supports is the development of a magazine giving background information about the KMA and showing the role of the Association in organized medicine. The publication would be directly mainly to the membership but would also be sent to community leaders, legislators and businesses to show them what the KMA has to offer.

With this publication and other steps in the program, any misconceptions about the purpose of KMA may be clarified. It's sometimes stated that KMA functions solely as a special interest group. "The work of committees such as the Voluntary Effort and Peer Review groups," Doctor Howell stresses, "shows that the KMA is much more than this. If you look over the activities of all our committees it is obvious that they function in the interest of the patients."

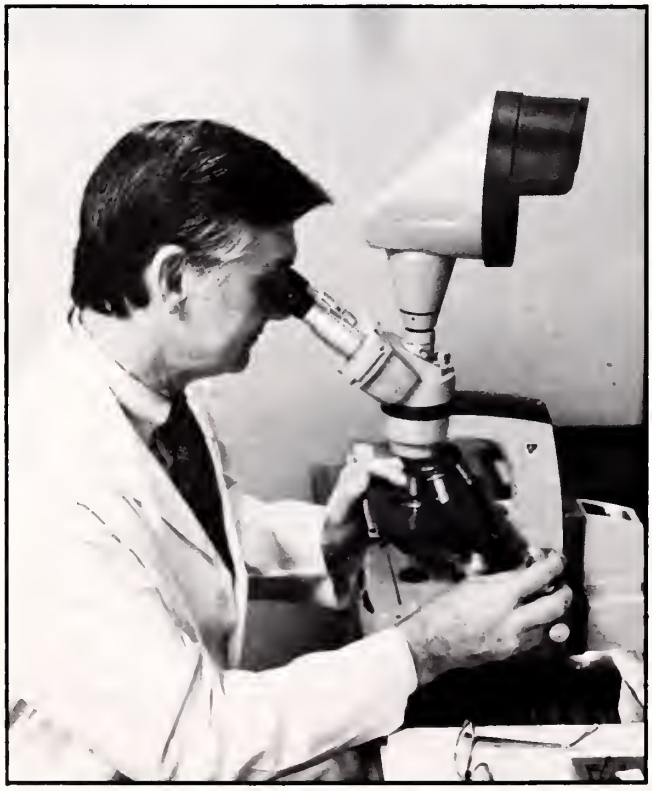
But in some areas KMA does operate as a special interest group. "And very effectively, I'm glad to say," says Doctor Howell. The political arm of the KMA is KEMPAC (Kentucky Educational Medical Political Action Committee). It is a non-profit committee that is funded from voluntary contributions and is politically non-partisan. "We all believe in the free practice of medicine and dislike government intervention. In this sense we are a self-interested organization. But this is a factor of self-preservation against the whims of bureaucracy," according to Doctor Howell.

The KMA has evolved into more than a self-interest group, but it is often accused of being guilty of reacting rather than acting prospectively. Doctor Howell is sensitive to this charge. "With all the resources available to the government-money, people and time, plus the weight of legislation, we're forced to be on the defensive. Legislators and bureaucrats spend their time at their jobs. But we can't be full-time legislators. It is how the government has so much influence on us."

Doctor Howell has an idea to help make KMA more pro-active. He suggests that KMA establish a special long-range planning committee to formulate opinions about what direction organized medicine should take. He says, "I want them to cover the water-front in their thinking and come up with some programs perhaps, or some thoughts that may be helpful in anticipating a problem before it surfaces and promote some thoughts on solving it."

Programs have already been developed by KMA that are pro-active. A good example is the Physician Recruitment Fair held last October. The Fair was developed to help educate communities on how to attract physicians to their areas. At the same time it gave physicians who were looking for practice locations an opportunity to meet with a variety of communities in a short amount of time without a lot of travel.

"If you have members believing in a strong organization then there is a wave effect in the community."



Doctor Howell has also begun work on a corporate visitation program. KMA representatives will meet with top corporation executives to discuss health care problems which KMA can perhaps advise or help find appropriate solutions.

Other steps in the Member and Community Education program include plans to expand the "Communicator," the monthly newsletter used to keep the membership informed of Association's activities. Subject areas to be included in the future will be information on federal legislation effecting the medical profession, the Kentucky General Assembly and the interim committee system and the activities of KMA committees.

To increase continuity in the medical profession, the KMA will be providing coordinating services to medical specialty groups. Through the use of two printing presses and a computer system at the KMA Headquarters building, specialty groups' newsletters, flyers and general correspondence can be handled by KMA staff.

Changes in the *Journal* of the KMA have been taking place during the past few months. The type size has been increased along with the column size which improves readability. Artwork is being used extensively to promote special events, including this year's Annual Meeting Program and the Emergency Medical Care Seminar. Plans are underway to increase the Association section of the *Journal* to give detailed information about organizational activities.

Finally, an added feature to the *Journal* will be interviews, such as this one, with members of the medical profession and allied health care services who have made a significant contribution to medicine. Doctor Howell was chosen for the first

"If you look over the activities of all our committees it is obvious that they function in the interest of the patients."

interview to allow him the opportunity to introduce the intent of the educational program and his plans for implementing it.

Doctor Howell has other suggestions for encouraging active participation in the KMA. With a slightly mischievous smile on his face, Doctor Howell calls these some of his more radical thoughts. He believes that the President of KMA should be compensated for his efforts. "The thing that may stop many members from being active is the time involved and the loss of income. I think that KMA should subsidize the President much the same as surrounding states do. This couldn't be a total subsidy but certainly a nominal amount should be considered. I think it would open up the presidency to people who have never given it a thought. And there are some very talented people out there."

Carrying out the plans of an education program like Doctor Howell's is quite an effort. He was pleased with the response from the Board of Trustees when he presented his ideas to them. He realizes it will be difficult to measure the success of his program, but he believes that the evidence will come from responses from Kentucky doctors and the public. "A lot of my ideas aren't new by any means but I really feel like they're the kinds of things we have to do to keep our organization healthy. This is vital for the future of our profession."



"We all believe in the free practice of medicine and dislike government intervention. In this sense we are a self-interested organization. But this is a factor of self-preservation . . ."

EDITORIAL

"Comforting Certainties" by David L. Stewart, M.D., was first published in the July 1979 issue of the *Journal of the Kentucky Medical Association*. The editorial was reprinted in the *Journal of the Indiana State Medical Association* in October 1979.

The response to the editorial was "Comforting Certainties—Magic in Medicine?" followed by a reply from Doctor Stewart. Both were published originally in the February 1980 issue of the *Journal of the Indiana State Medical Association* and are reprinted here with their permission.

Comforting Certainties

". . . Medicine of the whole person." Mr. Z was pleasant, but insistent. "My wife needs a doctor and I want to know if you practice medicine of the whole person." He was quite certain of the meaning of his phrase, but I wasn't at all sure what his particular definition of it meant to him. So now we will see her and find out if I practice what he preaches.

Undoubtedly he is sincere and we will likely find plenty of common ground. Possibly he read an article or heard a program saying that many different elements must be considered in dealing with illness and suggesting that this is a revolutionary concept. Such articles seem to give rigid criteria and promise marvellous results, but suggest that most physicians instead avoid a unitized approach through selfishness or ignorance. These articles go on to decry particularly, specialization and the scarcity of old-time values like house calls. Sometimes we are pilloried for our hesitancy about Laetrile, Senator Kennedy, megavitamins, lumpectomies and the economics of generic drugs.

What I would like to help Mr. Z understand is that, quite sincerely, physicians are often wrong and do not always manage to see every aspect of all illnesses in each person treated. But most of us try—sometimes by design, often by instinct. Some physicians actually treat only an anus or an asthma. Some are greedy. Some are in deep trouble. Some are dishonest. But most are not. Most are meticulous, conservative and cautious because experience has so taught us. Before the splendid complexity of Homo sapiens dealing daily with his ills, an honest physician stands humble, quizzical and charmed.

Yes, the physician tires. Our practices are not always exhilarating or even rewarding. We may fail to integrate, to see the big picture. I'll venture that I could come up with more examples of physician failure than Mr. Z ever dreamed possible, but I could come up with the opposite, too. I could tell him of the successes when an internist sensed instinctively that a case of asthma could not be dealt with by medicines alone—the sufferer must first leave the parental home. There was the opthalmologist who knew inflammation could not be vanquished until the too busy executive developed a new purpose. There was a psychiatrist who sensed that an addict must find a faith to displace the craving.

I wish him to know further, that we can all give instances of inexplicable cures, of people who couldn't possibly get well—but they did! And when this happens we feel awe, not embarrassment of our failure in prognostication. Somehow I would like to get over to Mr. Z that humans are more complicated than he can possibly imagine.

I have seen primitive people from remote and undeveloped areas of the world who simply shrugged off what they could not understand, refusing even to look at an airplane or listen to a voice from a box. It is simpler. It requires no effort or involvement. One can

sympathize with this very human inclination to stay with comforting certainties, with an understandable 'never' and a dependable 'always'.

The good doctors I know do most certainly practice medicine of the whole person, but it is not as a result of study or of reading a book. It comes as naturally with the healing process as does breathing. Truth cannot conflict with truth. But we cannot demand full explanations for everything that we see. There is much in medicine that requires us to gaze in wonderment, storing away experiences that may eventually be useful to us or to our patients. So far we can scarcely explain all that happens on a cell membrane; certainly we cannot explain all that happens in a cell, or an organ, or an organism.

Medicine of the whole person? We are all for it, Mr. Z, but please don't shy away if it develops that your wife's depression is related to your intellectualizations and your emotional aloofness.

DLS

'Cornforting Certainties' — Magic in Medicine?

Concerning the guest editorial by Dr. D. L. Stewart in the October 1979 issue of THE JOURNAL ("Comforting Certainties," Page 743), I would like to take exception to certain premises and attitudinal positions taken by Dr. Stewart which I believe could be detrimental to the improvement of medicine in our country.

Throughout Dr. Stewart's editorial, he speaks of instinctive actions taken by the part of physicians toward their patients and speaks of these in a rather approving manner. While such actions may be taken, they must be considered as non-verbalized responses to non-verbalized clues in patients' symptomatology and not indeed inborn behavorial patterns on the part of physicians which by definition an instinctive action would be.

He also speaks of inexplicable cures, and while I agree that these are indeed awe inspiring, I believe that we should always attempt to seek out the reasons for such inexplicable cures so that progress can be made.

Finally, Dr. Stewart takes an attitude which I believe is anti-scientific and detrimental. He speaks of a knowledge which cannot be obtained as a result of study or of reading books. It would be my contention that there is no such knowledge and that all knowledge can and should be transmitted. While we do not always have a full explanation for everything we see, we should, in fact, strive to obtain these, recognizing our present limitations.

In short, there should be no appeal to magic in medicine. Where medicine is an art is in the application of scientific principles to individual cases and to individuals whose reactions are frequently tempered by emotions.

ARTHUR LORBER, M.D.
Harcourt Clinic, Inc.
Indianapolis

The Author Replies—Intuition Cannot Be Created

It is gratifying to have a busy young orthopedic surgeon take time to respond to the guest editorial, "Comforting Certainties." I surely view with dismay the possibility that I have, at this point in life, actually become not just nonscientific but, even worse, antiscientific and detrimental to the improvement of medicine. May my heirs never hear!

Dr. Lorber is, of course, quite right in complaining of my use of the word "instinctive." We humans have little that is truly instinctive beyond the sucking of the infant and the pelvic thrust of copulation. Since I was referring, in my use of the word, to neither of these, I stand corrected. Intuition is much the better word to use here, though even this change may not placate Dr. Lorber. In turn, he may wish to reword his definition of where "medicine is an art" since he describes instead a technique.

The skeleton, a no-nosense system that survives even death and decay, seems an ideal area for Dr. Lorber's craft. Still, I wonder if he doesn't wish to reconsider his contention that there is no such thing as knowledge that cannot be obtained from study or of reading books. Technique can be taught. Intuition cannot be produced on demand. Honed it can be, but not created. The dedicated and dextrous apprentice can be turned into a skilled craftsman but more subtle ingredients are required if he is to be an artist, too. These will include such things as talent and feeling, intuition and the ability to marvel, all difficult to codify.

I am reminded of a statement of Pasteur's describing his view of his scientific enterprise. He mentioned feeling as if he were, metaphorically, a child playing on a beach, now and again finding a bright treasure in the sand—while the whole ocean of truth lay just before him, marvelous but uncomprehended.

After all knowledge available in Dr. Lorber's lifetime is written down, organized into disciplines, cleverly recorded and spread to the medical masses, one hopes that at the zenith of his career he will see, intuitively, beyond him a great ocean of truth which he cannot know because life is brief and he is finite. Then, one hopes, he will marvel at what he cannot know.

Basically, that's all this small editorial has to say.

DAVID STEWART, M.D.
Louisville, Ky.



Tagamet®

brand of

cimetidine

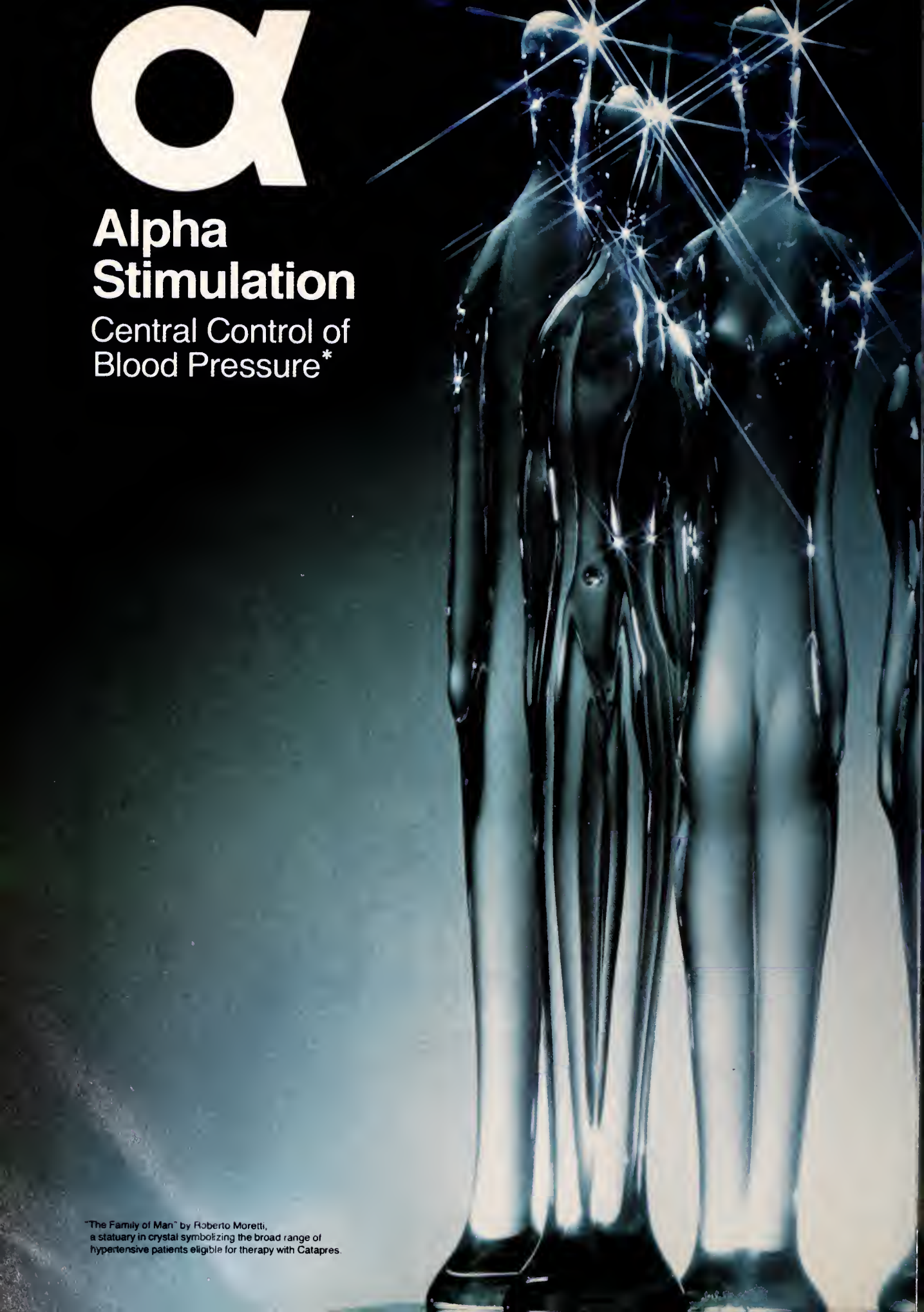
How Supplied:

Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).
Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres* has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets

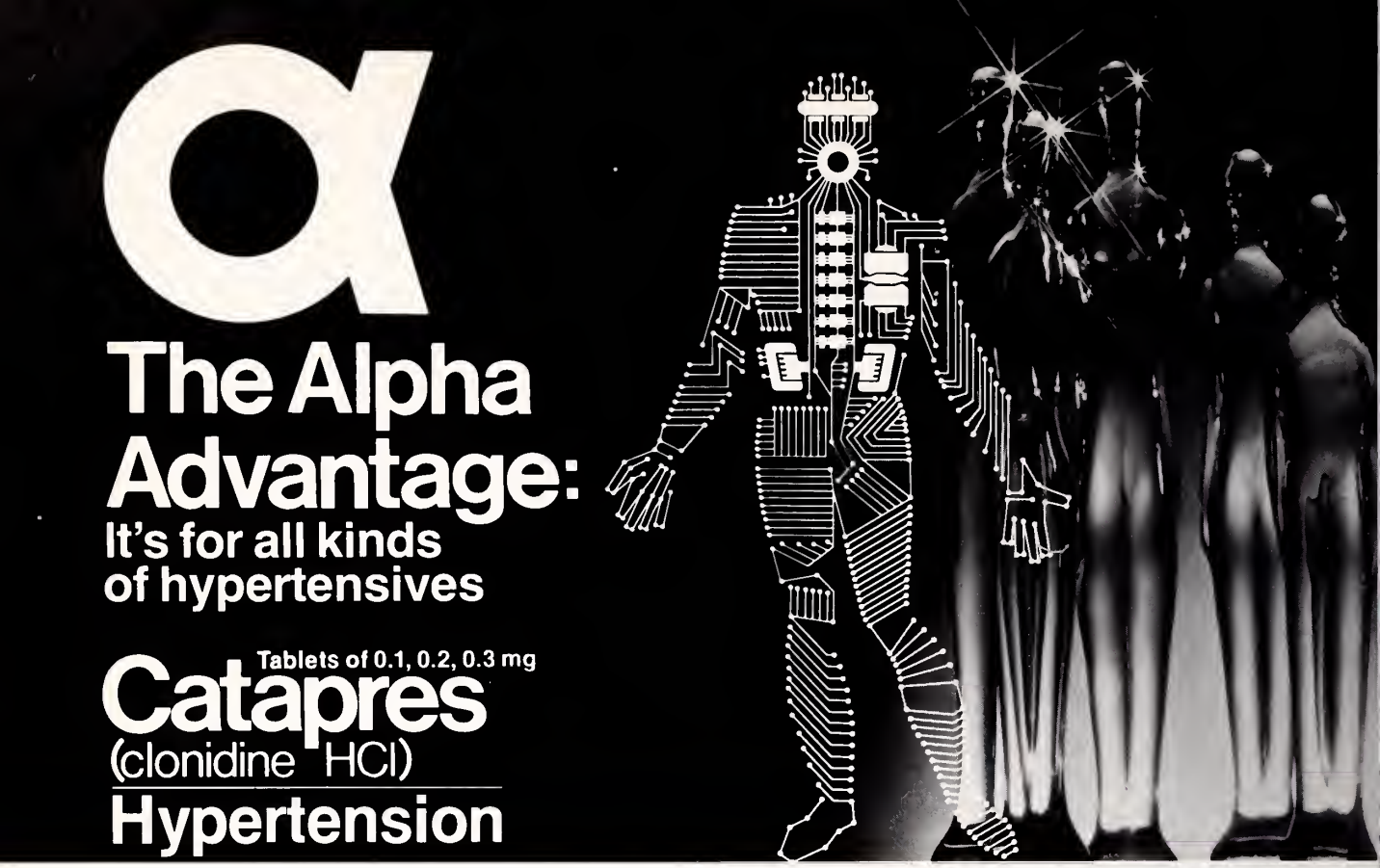


Tablets of 0.1, 0.2, 0.3 mg

Catapres®

(clonidine HCl)

Hypertension



The Alpha Advantage:

It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg

Catapres

(clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at brea fast and 0.1 mg at bedtime. Some patients may bene from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 mo longer.

Adverse Reactions: The most common reactions are dry mouth, drowsine sedation. Constipation, dizziness, headache, and fatigue have been re Generally these effects tend to diminish with continued therapy. The fo reactions have been associated with the drug, some of them rarely. (In instances an exact causal relationship has not been established.) These ir Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnorma liver function tests; one report of possible drug-induced hepatitis without and hyperbilirubinemia in a patient receiving clonidine hydrochloride, thalidone and papaverine hydrochloride. Weight gain, transient elevation o glucose, or serum creatine phosphokinase: congestive heart failure, Ray phenomenon; vivid dreams or nightmares, insomnia, other behavioral ch nervousness, restlessness, anxiety and mental depression. Also ras gioneurotic edema, hives, urticaria, thinning of the hair, pruritus not ass with a rash, impotence, urinary retention, increased sensitivity to alcohol, dr itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecor weakly positive Coombs' test, asymptomatic electrocardiographic abnorn manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished sent reflexes and vomiting followed the accidental ingestion of Catapres (cl hydrochloride) by several children from 19 months to 5 years of age. lavage and administration of an analeptic and vasopressor led to compl covery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30- intervals usually abolishes all effects of Catapres, (clonidine hydrochloride dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 100 available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
Under license from Boehringer Ingelheim GmbH

Boehringer Ingelheim
Boehringer Ingelheim
Ridgefield, CT 06877

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

As the country moves into the decade of the 1980's, physicians should take a moment to reflect upon the many advances in health care that have occurred in the past two decades—the result of medical progress truly unimaginable 100 or even 50 years ago. The 1980's undoubtedly will bring still more progress; they will present as well new challenges and controversies. One measure of how well the medical profession meets the challenges and answers the controversies will depend in large part upon the future direction and past performance of Professional Standards Review Organizations (PSROs). The PSRO for Kentucky is the Kentucky Peer Review Organization (KPRO). I am its President, and I would like to share with you my impressions, concerns and hopes for the PSRO program in general, KPRO in particular.

My impressions from associating with KPRO have been rich and varied. Foremost, I think, is a tremendous pride in Kentucky physicians and their skill and good judgement in the practice of medicine. The quality of care in Kentucky is very high. Of course, there are persons who abuse the health care delivery system, and we have directed our energies toward correcting such practices. However, the problems are minimal compared to the vast majority of dedicated and knowledgeable physicians.

Other impressions of KPRO include the first impact study we wrote. It was very satisfying to finally have enough data on hand to be able to undertake such a study, which calculated net savings of the program to be nearly $4.5 million since January 1977.

I feel very positive about PSRO because I know it is working in Kentucky. KPRO has shown that the fears of "cookbook medicine" are unfounded—Kentucky physicians have developed local criteria, standards and norms. We also analyze any and all variations on a **local** peer-to-peer basis.

I have been extremely impressed with the data system KPRO has put into operation. The system is unique among PSROs in capturing and processing all data in the same building where KPRO offices are located with a strict policy of confidentiality. Problems of delay and potential breach of security that can occur with out-of-state data processors have thus been avoided.

The value of KPRO data to the medical community cannot be overestimated. To date, we have been pleased to cooperate with both of Kentucky's medical schools in devising important continuing medical education programs and in assisting with quality assurance objectives. The future holds the promise of more contact between KPRO and the state's teaching universities. Further utilization of KPRO data for research and educational purposes are expected to be realized through cooperation with Kentucky physician specialty organizations.

More importantly, we have been developing clinical profiles that are beginning to be used by local medical staffs for local medical audit studies. A step undertaken by KPRO in the past year was the first application of focusing techniques in hospital review. Focused review exempts from formal concurrent review those areas where performance seems satisfactory and concentrates review on situations appearing to require more scrutiny. This procedure reduces the overall cost of review while exempting areas that no longer need review. To date, a total of 967 physicians (83,586 potential discharges) have been focused out.

A final impression—I am very grateful for the advice and cooperation we have received from physicians, hospitals and long-term care professionals. We have come a long way since 1974; our program would not have been possible without their help, encouragement, and, yes, even criticism.

One of the greatest concerns for the PSRO program in the future is in the area of confidentiality. The confidentiality of information collected in the PSRO review processes has been a major concern since the inception of the PSRO program. The PSRO law prohibits disclosure of PSRO data "except (1) to the extent that may be necessary to carry out the purposes of (the PSRO

program) or (2) in such cases and under such circumstances as the Secretary shall by regulations provide to assure adequate protection of the rights and interests of patients, health care practitioners, or providers of health care." Recently, however, the Public Citizen Health Research Group has challenged the confidentiality of the PSRO information on the basis of the Freedom of Information Act (FOIA).

In its first decision on the HRG case, the District Court of the District of Columbia ruled that, for the purposes of the FOIA, PSROs are federal agencies. A second ruling stated that none of the FOIA exemptions applied to PSRO data. These decisions threaten the disclosure of sensitive PSRO information and are being appealed. PSROs are concerned that disclosure of information identifying individual institutions, physicians and patients will affect the nature of the peer review system and jeopardize the continued operation of the PSRO program. HEW has issued regulations concerning the acquisition, protection and disclosure of PSRO data; and changes in PSRO legislation have been proposed in order to protect the confidentiality of PSRO information.

I am unhappy about this threat to physician and patient privacy. However, I am convinced that the decision will be overturned on appeal or that Congress will enact legislation providing for the protection of PSRO data. KPRO has made known its strong views on the subject, as has the American Association of PSROs. I believe we will overcome this adversity as we have overcome so many others.

Complacent physicians are another concern that I have. While I do not believe that the government is our enemy, I do believe that it is a natural tendency in any institution in modern society to push for more power and control. If the government encounters little or no resistance from physicians, it will naturally extend its hegemony. This can work in another way—if support for PSROs is lukewarm or indifferent and the proponents of cost containment begin to clamor for federal controls on health care costs, which is likely to happen in the 1980's, the concept of local physician-directed peer review groups may be seriously endangered.

It has been my observation that the federal bureaucracy seems to listen with more understanding to organizations actively resisting it. For this reason, KPRO has been able to effectively head off many potential infringements into the practice of medicine. For example, KPRO and its fellow PSROs were vocal in their opposition to a federal plan to centralize the collection of PSRO data in the country and to use Social Security numbers as identifiers for physicians and patients. Our adamantly negative view of a plan that was willing to risk confidentiality guarantees is one of the reasons the plan was abandoned. I firmly believe that unified physicians can move mountains if push comes to shove. But we must not become complacent!

This is why I urge Kentucky physicians to support KPRO and their profession by becoming members and by becoming involved in local peer review activities. The key to whether or not physicians retain control of peer review rests in your hands. I believe that this control is essential.

What potential benefits to the practice of medicine can be derived from the PSRO law? The law is based on the principle of peer review. I am sure you will agree that this is a principle that is very difficult to argue effectively against. Peer review is the foundation of KPRO's activities. Whatever the different tools we may use—concurrent review, profile analysis, medical care evaluation studies, the development of local criteria, standards and norms—the end result is always peer review because **Kentucky physicians are in control of the process.**

Unpleasant though it may be, we must all recognize that there are a few people who would abuse the medical care delivery system. KPRO's analysis identifies the true abusers. The elimination of this abuse is of the greatest benefit to the integrity and credibility of the physician and hospital community. KPRO, with your participation and your help, can identify these problems. These individuals—hospital, practitioner or consumer—must be dealt with in a manner that will correct their abusive pattern; significantly, all action is decided by the physicians comprising KPRO's Committees and Board of Directors.

Over 60% of Kentucky physicians are KPRO members. We ask the rest of you to join us and, especially, to participate in local peer review efforts. Use the program to your advantage—there is too much potential for significant health care delivery advancement for you to pass it up. I do not believe that there is a single Kentucky physician opposed to improving the health care delivery system and establishing a more unified body of physicians in Kentucky. KPRO exists today, and the time to become involved is now.

Gabe A. Payne, Jr., M.D.
President
Kentucky Peer Review Organizatio

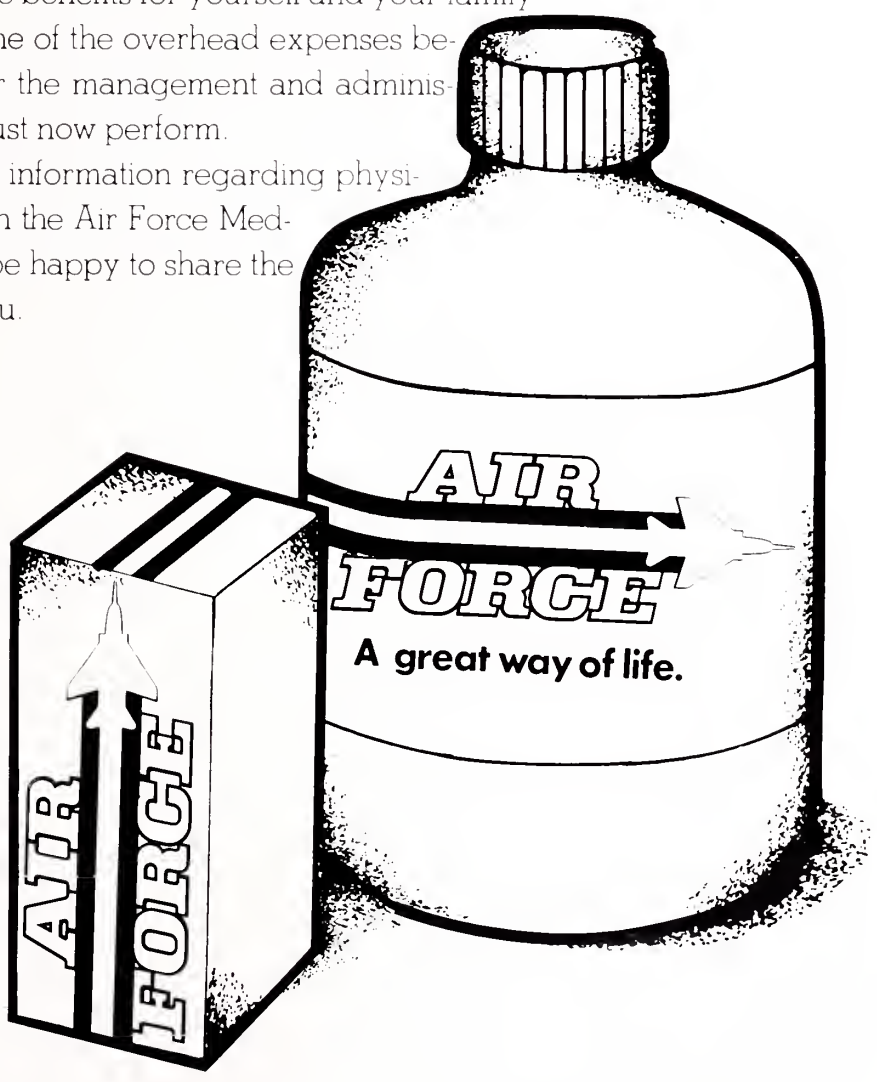
"We've got the remedy"

If you are considering a change, consider the Air Force Medical Service. The benefits include:

- An excellent salary
- 30 days of paid vacation each year
- The rank and prestige of an Air Force Officer
- Full Air Force benefits for yourself and your family

You'll have none of the overhead expenses because we take over the management and administrative tasks you must now perform.

We have more information regarding physician appointments in the Air Force Medical Service. We'll be happy to share the information with you.



Contact:
Captain Sam Owens
110 21st Ave. South, Suite 712
Nashville, Tennessee 37203
or call collect (615) 251-5530

Air Force. A great way of life.

320G138

How's Your Cost Consciousness?

JUNE—Participate fully in all committees of your hospital and attend staff meetings. Become knowledgeable of the affairs and problems of your particular hospital and strive to correct the problems. Be sure that your committees are doing their work and that dollars are not being consumed because of inefficiencies and problems that exist only because there has been lack of attention. If you derive your living by practicing in a hospital, you have a moral and ethical obligation to contribute in the professional activities and committee work of the hospital staff.

Cooperate fully with the Infection Control Committee of your hospital since these measures are designed to protect other patients even though they might represent a burden to the infected patient.

Each hospital should appoint a cost containment committee as part of the staff to review and follow up ways of containing costs.

CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

- provides effective symptomatic relief
- *b.i.d.* dosage simplifies therapy
- scored tablet for dosage flexibility

OPTIMINE®
azatadine maleate, 1 mg. tablets

CONTRAINDICATIONS Use in Newborn or Premature Infants. This drug should not be used in newborn or premature infants.

Use in Nursing Mothers. Because of the higher risk of antihistamines for infants generally and for newborns and prematures in particular, antihistamine therapy is contraindicated in nursing mothers.

Use in Lower Respiratory Disease: Antihistamines should NOT be used to treat lower respiratory tract symptoms including asthma.

Antihistamines are also contraindicated in the following conditions: hypersensitivity to azatadine maleate and other antihistamines of similar chemical structure; monoamine oxidase inhibitor therapy (See DRUG INTERACTIONS Section).

WARNINGS Antihistamines should be used with considerable caution in patients with: narrow angle glaucoma; stenosing peptic ulcer; pyloroduodenal obstruction; symptomatic prostatic hypertrophy; bladder neck obstruction.

Use in Children. In infants and children especially, antihistamines in overdosage may cause hallucinations, convulsions, or death.

As in adults, antihistamines may diminish mental alertness in children. In the young child, particularly, they may produce excitation.

OPTIMINE TABLETS ARE NOT INTENDED FOR USE IN CHILDREN UNDER 12 YEARS OF AGE.

Use in Pregnancy: Experience with this drug in pregnant women is inadequate to determine whether there exists a potential for harm to the developing fetus.

Use with CNS Depressants. Azatadine maleate has additive effects with alcohol and other CNS depressants (hypnotics, sedatives, tranquilizers, etc.).

Use in Activities Requiring Mental Alertness: Patients should be warned about engaging in activities requiring mental alertness, such as driving a car or operating appliances, machinery, etc.

Use in the Elderly (approximately 60 years or older): Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients.

PRECAUTIONS Azatadine maleate has an atropine-like action and, therefore, should be used with caution in patients with: a history of bronchial asthma; increased intraocular pressure; hyperthyroidism; cardiovascular disease; hypertension.

DRUG INTERACTIONS MAO inhibitors prolong and intensify the anticholinergic (drying) effects of antihistamines.

ADVERSE REACTIONS The most frequent adverse reactions are underlined.

General: Urticaria, drug rash, anaphylactic shock, photosensitivity, excessive perspiration, chills, dryness of mouth, nose, and throat.

Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.

Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis.

Nervous System: Sedation, sleepiness, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis, hysteria, neuritis, convulsions.

Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.

Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses.

Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.

OVERDOSAGE Antihistamine overdosage reactions may vary from central nervous system depression to stimulation. Stimulation is particularly likely in children. Atropine-like signs and symptoms (dry mouth; fixed, dilated pupils; flushing; and gastrointestinal symptoms) may also occur.

If vomiting has not occurred spontaneously, the patient should be induced to vomit. This is best done by having him drink a glass of water or milk after which he should be made to gag. Precautions against aspiration must be taken, especially in infants and children.

If vomiting is unsuccessful, gastric lavage is indicated within three hours after ingestion and even later if large amounts of milk or cream were given beforehand. Isotonic and ½ isotonic saline is the lavage solution of choice.

Saline cathartics, such as milk of magnesia, draw water into the bowel by osmosis and therefore are valuable for their action in rapid dilution of bowel content.

Stimulants should not be used.

Vasopressors may be used to treat hypotension.

FEBRUARY 1977 11055010

For more complete details, consult package insert or Schering literature available from your Schering Representative or Professional Services Department, Schering Corporation, Kenilworth, New Jersey 07033.

Schering Corporation
Kenilworth, New Jersey 07033

SWW-417 I

THINK DRY

Schering



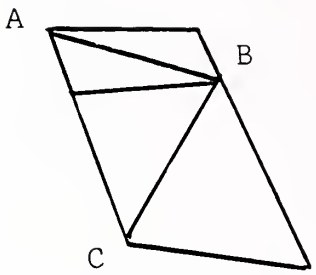
THINK
OPTIMINE®
azatadine maleate, 1 mg tablets

FIRST
for relief of allergy symptoms

℞ only

Please see adjacent brief summary of prescribing information.

Copyright © 1980, Schering Corporation. All rights reserved.



Is line BC
longer than AB?

Insurance contracts are also very deceptive. Most companies these days are solid and there is very little difference in the coverages offered; but the most important part of any accident and health insurance is how claims are paid. We make it as easy for you as possible and, at most ages, our group disability contracts are cheaper. Otherwise we would not have had continual endorsement of professional organizations for over forty years for their group programs.

A. P. Lee, the founder of our company, used the phrase "Where claim service is most important" for over thirty years and we feel the same today!

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880 Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Lilly

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

000482

Stephen Z. Smith, M.D.
Assistant Scientific Editor

Handbook of Pediatrics

Henry K. Silver, M.D., C. Henry Kempe, M.D. and Henry B. Bruyn, M.D., Lange Medical Publications, Copyright 1980, 735 pages

Despite its numerical legacy, the 13th edition of the Handbook of Pediatrics has continued the educational and useful tradition of its predecessors. Compact, unburdened by ponderous discussions and explicitly indexed, this inexpensive paperback is indeed a bargain.

The initial sections introduce the history taking and physical examination, perhaps with too much stress to the early years. It is true that the neonate and preschool child challenge the examiner by their lack of communicative skills, but as these early chapters emphasize, perceptive and extensive physical examination reward with diagnoses. Communication with parents is necessary and aids with evaluation and treatment.

An anatomic dialogue covers the mid-section of the book. The major organ systems are dissected and some developmental landmarks are outlined. Congenital defects, transition and afflections peculiar to each of the organ systems neatly constructs an understandable and referential guide. Either reading through the chapters or picking out pertinent facts is facilitated with this approach but certainly the flowing, readable style of more formal textbooks is lost.

Systemic disease—neuromuscular, endocrine, metabolic, neoplastic, reticuloendothelial, infectious, allergic and collagen disease—are successfully discussed with clinical findings and treatment given in a manual style. An occasional illustration would have been welcomed to the reader beleagured by so many facts. The tables are crowded with so much detail that a magnifier should be included with the book yet in the end the reader will be grateful that a differential diagnosis can be readily found as well as some treatment alternatives.

The appendix is surely mislabeled. A section having a handy dictionary, a laboratory primer and a luxurious differential diagnosis make this concluding section an integral and necessary part.

From the neonate to the adolescent, the fascinating but frustrating pediatric world is well described in this handy book.

Handbook of Poisoning

Robert H. Dreisbach, Lange Medical Publications, Copyright 1980, 578 pages

This ominous cover title introduces a virtual almanac of past and present poisons. From the fang of the asp to the mouth of the opened childproof "harmful substance" bottle, various inimical chemicals may challenge our ability to detoxify. Spawning an increasingly diverse and unfortunately sometimes insidious chemical spectrum, the industrial complex in this and other countries guarantees any such handbook of poisoning a precarious life expectancy.

Truly a handbook in its easy fit into the palm and facile index for quick reference, this book is nevertheless packed with both diagnostic and treatment data.

Agricultural, industrial, household and medical substances are discussed in their role as potential poisons. Dissecting their path of destruction is useful in understanding therapeutic maneuvers. Soon the reader may anticipate which remedy among the virtually bewildering array to choose.

Relatively short shrift is awarded to biological poisons from plants and animals. Probably no such abbreviated text could encompass the multitude of these toxins. Regional manuals assume this gap.

The legacy of past editions has not only been carried on but the tenth edition belongs in the emergency room and easily ($9.00) within reach where the panic phone can ring.

General Ophthalmology

Daniel Vaughan, M.D. and Taylor Asbury, M.D., Lange Medical Publications, Copyright 1980, 410 pages

This rejuvenation of the Lange series on Ophthalmology was an easily readable, beautifully illustrated and informative book.

The book starts with an anatomical description of the eye and its ancillary structures. Various angles, revealing cross-sections and birds-eye views open this bone housed organ to the curious. Despite a general uneasiness and often intimidating ignorance, the non-ophthalmologist is guided through the examination of the eye. Initially the enticing possibility of actually seeing all the structures of the eye is entertained, but typically the ponderous instrumentation involved blocks all but the specialist from the "real world."

Each anatomical part is granted an overview, a delineation of its maladies and a program for its treatment. This orderly approach makes the book not only educational to the student but referential to the clinician. Perhaps too much emphasis is placed on referral to the ophthalmologist in all sections. Not to demean good intentions, but this hinders grassroot treatment of ocular disease where specialty consultation and treatment is neither available nor affordable. Sufficient warning of all the pitfalls in misguided treatment makes the reader quite respectful and cautious.

Not only one, but four appendices make the end of this book seem endless. A multipage dictionary and a montage of symbols add to the mystique of ophthalmology. The new section on the exciting CT Scan is balanced with the usual maze-like sections on optics and refraction.

The reproduction of pictures is clear and revealing, the drawings are sufficient and didactic and the few tables are appreciated. Overall the book is very well printed and organized.

Though well couched in a "specialty" role, ophthalmology in this book becomes an approachable realm for study and review.

Current Surgical Diagnosis & Treatment

J. Englebert Dunphy and Lawrence W. Way, Lange Medical Publications, Copyright 1979, 1162 pages

The fourth and current edition of Surgical Diagnosis and Treatment embraces the task of a concise didactic review of surgery admirably.

The initial chapters construct the foundation of wound healing, fluid and electrolyte management, metabolism and inflammation solidly, though by necessity with some editorial omissions.

Anesthesiology, pre and post operative care and shock are included to familiarize the reader with "nuts and bolts" surgical management.

In the remaining 30 chapters the body organs and their coverings are discussed, initially detailing the maladies that affect them and then the surgical therapeutic methods for their treatment. The comfortable instructional, almost lecture like style embellished with photos, drawings and illustrations make the reading easy, though perhaps staccato.

Not a book to be devoured from cover to cover, this encyclopedic type of review is handy for the clinician who is unfamiliar with the surgical theater, who seeks workbench knowledge of what referral of this patient for surgical care may bring and for the student of all ages who wants to understand the surgical realm.

The bibliographies are up to date and contain obtainable references, mostly reviews. The multipage index is specific and expedites using the book as a reference.

If there is a weakness, it would be the intent of the book to include any field that may even abut on a surgical milieu. Several chapters—oncology and radiation therapy—could have been deleted and their pages used to expand classic surgical problems.

No doubt this book will assume its popular bookstore and library place. Modernizing one's library with such re-editions is at least some buffer against the sands of surgical knowledge erosion.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

"Uncommon Problems in the Human Life Cycle" is this year's KMA Annual Meeting Theme

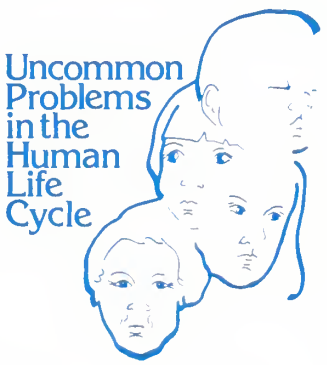
A variety of topics will be discussed by medical authorities from across the nation in this year's KMA Annual Meeting at the Ramada Inn/Bluegrass Convention Center, Louisville, September 22-25.

The scientific program planned for this year will feature guest speakers representing 21 medical specialities. The four themes for the program are: "Birth, Infancy and Childhood," Adolescence to Adulthood," "Middle Age" and "The Aging Patient."

Other activities during the KMA Annual Meeting include 21 specialty group meetings, KMA House of Delegates meetings on September 22 and 24, the President's Luncheon on September 24 and a certification in cardiopulmonary resuscitation (CPR) for physicians on September 24 from 9 a.m. to 5 p.m.

Details of activities of the 1980 KMA Annual Meeting will be carried in upcoming issues of the Journal and "Communicator."





"Effects of Coitus During Pregnancy" is Doctor Naeye's topic at KMA Annual Meeting

Thursday morning, Sept. 23, Richard L. Naeye, M.D., will speak on the dangers of sexual activity during pregnancy, to the unborn baby.

In a study, Doctor Naeye, Chairman of the Pathology Department at Pennsylvania's Hershey Medical Center, reported finding a link between coitus and the incidence and severity of infections of the amniotic fluid surrounding the fetus.

Doctor Naeye also found that the babies of mothers who were sexually active until the time of delivery were twice as likely to show signs of such illnesses as jaundice and respiratory problems.

Scientific sessions of the Annual Meeting are scheduled Sept. 23, 24 and 25 at the Ramada Inn/Bluegrass Convention Center, Louisville.

Legislative Highlights

In the May issue of *The Journal of the Kentucky Medical Association* a brief summary was presented of all health legislation KMA monitored during the 1980 General Assembly. In order to keep our members better informed and to alleviate potential problems that may occur as a result of recently-enacted legislation, we are presenting a review of new laws that may have serious implications as they relate to an individual physician's practice. We do, however, point out that these are summaries and, should you have concerns or questions, additional information can be obtained from the KMA Headquarters Office. Copies of the legislation may be obtained by writing or phoning the Legislative Research Commission, Frankfort.

Senate Bill 135—Motor Vehicle Operator's License (Trevey)

Amends statute to prohibit persons requiring corrective lenses who use a compound lense system for both eyes which increases the power of the lenses while restricting the field of vision, from obtaining an operator's license.

Senate Bill 329—Motor Vehicle Operator's License (Trevey)

Amends statute to require any person with seizure conditions applying for or renewing a motor vehicle operator's license to present certification to the division of motor vehicles from a physician that his condition is controlled by drugs and a certificate from himself that he has been free of seizures for 90 days prior to such application; makes such certification mandatory before the applicant is authorized to be licensed; allows such persons without certification a hearing; exempts physicians testifying at said hearings from civil or criminal liability.

House Hill 158—Removal of Cornea—Coroner's Cases (Burch)

Creates new sections of KRS Chapter 311 to authorize the removal of the cornea or corneal tissue for transplant when the coroner or medical examiner has reasonable cause for believing that death was caused by homicide, crime, violence, accident, suicide, poison, drowning, illegal abortion, unusual circumstances or other circumstances and upon whom an autopsy has been otherwise ordered pursuant to KRS 72.410; if no objection by next of kin is known to him and the removal of the organs will not interfere with an investigation; relieves the coroner or medical examiner of liability for not obtaining consent of next of kin.

Senate Bill 214—Alcoholism (Murphy)

Amends statutes to provide immediate treatment for persons appearing in a public place who are suffering from alcoholism; permits any intoxicated person or any alcoholic to apply for voluntary treatment directly to a treatment center; permits a physician or relative of an intoxicated person to make a written application for admission for treatment; directs the Department for Human Resources to arrange for assistance in obtaining supportive services and residential facilities for alcoholics needing further treatment; permits an intoxicated person who presents a danger or threat of danger to self, family or others, or is incapacitated by alcohol to be admitted to a treatment facility for emergency treatment; allows the department or any city or county to establish emergency service units; prohibits any city, county or other political subdivision to adopt or enforce any law, ordinance, resolution or regulation inconsistent with such provisions; requires the administrator of each treatment facility to keep a record of treatment confidential, upon proper judicial order.

House Bill 125—Alcoholism (Wright)

Creates a new section of KRS 311 stipulating that no public funds shall be used for the purpose of obtaining an abortion or paying for the performance of an abortion. No public funds shall be used for the purpose of conducting research into or for the performance of in-vitro fertilization, which is a procedure involving the destruction of live human fetuses. For purposes of this section, "public funds" means any money of the Commonwealth of Kentucky, any department, agency or instrumentality thereof, or any money of any county, city, agency or instrumentality thereof or any money of any other political subdivision of the Commonwealth, agency or instrumentality thereof. Nothing in this section shall be deemed to deprive a woman of all appropriate medical care necessary to prevent her physical death.

For purposes of KRS 205.010 and KRS 205.560, "abortion" means an act, procedure, device or prescription administered or prescribed for a pregnant woman by any person, including the pregnant woman herself producing premature expulsion of the fetus. Abortion does not include an induced premature birth intended to produce a live viable child.

House Bill 315—Abortion (Heleringer)

Requires that an abortion, after the first trimester of pregnancy, except in cases of emergency to protect the

life or health of the pregnant woman, where an abortion is permitted under other provisions of KRS 311.730 to 311.810, be performed by a duly licensed physician in a hospital duly licensed by the Kentucky Health Facilities and Health Services Certificate of Need and Licensure Board.

House Bill 364—Abortion (Donnermeyer)

KRS 311.800 is amended to read as follows: (1) No publicly owned hospital or other publicly owned health care facility shall perform or permit the performance of abortions, except to save the life of the pregnant woman. (2) In the event that a publicly owned hospital or publicly owned health facility is performing or about to perform an abortion in violation of subsection (1) of this section, and law enforcement authorities in the county have failed or refused to take action to stop such a practice, any resident of the county in which the hospital or health facility is located, may apply to the circuit court of that county for an injunction or other court process to require compliance with subsection (1) of this section.

Any administrator, officer or employe of a publicly owned hospital or publicly owned health care facility who performs or permits the performance of abortions in violation of the above shall be guilty of a Class A misdemeanor.

House Bill 624—Laetrile (Cyrus)

Legalizes the sale and distribution of amygdalin (laetrile) to terminally ill patients; restricts availability of this substance to patients terminally ill by prescription only; requires a patient to sign a written informed request before a physician may prescribe or administer amygdalin (laetrile); creates new sections of KRS Chapter 217 to authorize the manufacture of amygdalin (laetrile) subject to licensing and regulation; forbids the sale of such drug in interstate commerce; undertakes to provide protection to physicians from malpractice or negligence claims; creates a new section of KRS 315 to prevent the Board of Pharmacy from making any rule or regulation to prohibit the sale and dispensing of amygdalin (laetrile) by a licensed pharmacist; provides for penalties.

House Bill 293—Immunization (Donnermeyer, DeFalaise, Sale, Schmidt)

Amends statute to allow parents to object to immunization or medical testing of their children if they are opposed to such immunizations or medical testing on religious grounds and to waive such immunization or medical testing requirement when a written sworn objection is received; deletes the requirement that such objectors be members of a nationally-recognized church or religious denomination opposed to such requirement.

Carl Cooper, Jr., M.D., Chairman
KMA Committee on State Legislative Activities

Corporate Visitation Program Begins with GE

The first of a series of meetings between KMA and officials of Kentucky's largest corporations was held recently. Robert S. Howell, M.D., KMA President; Walter I. Hume, Jr., M.D., Chairman of KMA's Cost Containment Committee and staff met with officials of General Electric Company to discuss health cost issues.

The meeting covered several areas, including questionable medical leaves of absences, cost of administering employee health benefit programs and the effects of negotiations on benefit plans. Suggestions were made for establishing a closer working relationship between industry, their medical staffs and physicians in private practice.

Doctor Howell plans to meet individually with officials of several other large companies through the summer followed by a meeting with the company representatives as a group to discuss the findings of the visitation program.

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Rogelio Alcantra Acosta, Barbourville
M. K. N. Ahmed, Louisa
Gordon Walker Air, Covington
William Gladstone Begley, Bowling Green
Daniel Davisson Beineke, Mayfield
Herbert M. Bertram, Vanceburg
Winston Layne Burke, Lexington
William C. Cheathan, Louisville
James Childers, Louisville
Ronald Gale Chism, Louisville
Harold Thomas Faulconer, Lexington
Donald Denis Gaynor, Covington
John P. Heilman, Fort Campbell
George Frank Hromyak, Frankfort
Nina Kateryniuk, Louisville
Suk-Kyung Koh, Springfield
Feris I. Larsen, Morganfield
Tom Smith Maddox, Owensboro
James Francis Molloy, Louisville
Preston Nunnelley, Lexington
Horace B. Pendleton, Owensboro
Antolin Joaquin Perez, Louisville
Albert Charles Selke, Lexington
Harry Douglas Stambaugh, Louisville

NEW MEMBERS

Calloway County

Shashi Tandan, M.D., Murray

Fayette County

John R. Allen, M.D., Lexington
Sanford H. Kuo, M.D., Lexington
Juan M. Reusche, M.D., Lexington
Ramanathan Sampath, M.D., Lexington

Jefferson County

Mahesh Agrawal, M.D., Louisville
Rajan R. Amin, M.D., Louisville
John W. Arnett, M.D., Louisville
Antero J. Avenido, M.D., Elizabethtown
Jae Keun Bae, M.D., Ft. Thomas
Alexius M. Bishop, M.D., Edgewood
Arthur T. Blanford, M.D., Hopkinsville
James M. Bowles, M.D., Madisonville
Barry A. Brumberg, M.D., Louisville
John J. Buchino, M.D., Louisville
Del Anthony Burchell, M.D., Erlanger
Shakeela P. Bux, M.D., Danville
Robert C. Clear, D.M.D., Louisville
Amar Desai, M.D., Louisville
H. B. Francis, M.D., Florence
Frederick Gensler, M.D., Cincinnati, Ohio
James W. Green, M.D., Louisville
Richard Greenberg, Ph.D., Louisville
James K. Hancock, M.D., Louisville
Harold Harrison, M.D., Louisville
Joseph H. Hersh, M.D., Louisville
Jayne Hollander, M.D., Louisville
Russell E. Howard, M.D., Murray
James L. Howse, M.D., Frankfort
Tsung Yao Huang, M.D., Louisville
Baby Jose, M.D., Louisville
Ellen M. Joyce, M.D., Craynor
Jeffrey C. King, M.D., Louisville
Jerome Krumpleman, M.D., Richmond
Glen E. Lambert, Jr., M.D., Louisville
Oon Leedhanachoke, M.D., Pikeville
James K. Lincer, M.D., Louisville
Rajat K. Mahapatra, M.D., Louisville
Larry T. McClure, M.D., Leitchfield
John E. McCracken, M.D., Paducah
Michael G. McIntosh, M.D., Florence
Roland H. Myers, Jr., M.D., Paducah
Deepak Nagar, M.D., Louisville
Arthur F. North, DDS, Louisville
Rickey H. Pack, M.D., Louisville
James J. Rice, Jr., M.D., Louisville
George T. Rich, M.D., Danville
Charles Richardson, M.D., Louisville
Abdel W. Sami, M.D., Elizabethtown
Ellis Samols, M.D., Louisville
Robert H. Schell, M.D., Owensboro
David P. Slaughter, M.D., Erlanger
Robert William Spohr, M.D., Louisville
James R. Stivers, M.D., Louisville
Victorino R. Teleron, M.D., Paducah
James L. Wittliff, Ph.D., Anchorage

IN MEMORIAM

JAMES E. BRYAN, M.D.
1925-1980
Louisville

James E. Bryan, M.D., Louisville, died April 12, 1980, at his home. Doctor Bryan was an associate clinical professor of internal medicine at the University of Louisville School of Medicine. He was on the staff of Norton Infirmary, Children's Hospital, Highlands Baptist Hospital, Methodist Evangelical Hospital and Jewish Hospital. Doctor Bryan was a member of the KMA and a fellow of the American College of Physicians. He was a 1951 graduate of the Harvard Medical School.

JOHN LACY HOPSON, M.D.
1915-1980
Murray

John Lacy Hopson, M.D., Murray, died April 13, 1980. Doctor Hopson was an internist and had been a member of the KMA since 1948. He was a 1942 graduate of the Vanderbilt University School of Medicine.

WOODFORD B. TROUTMAN, M.D.
1897-1980
Louisville

Woodford B. Troutman, M.D., Louisville, died April 14, 1980, at Methodist Evangelical Hospital, Louisville. Doctor Troutman was a cardiologist and a graduate of the University of Louisville School of Medicine. He was secretary of the KMA for seven years and treasurer for 10 years. Doctor Troutman was a former clinical professor of medicine at U of L and former staff president at the old St. Joseph Infirmary.

ARTHUR D. DONNELLY, JR., M.D.
1917-1980
Bowling Green

Arthur D. Donnelly, Jr., M.D., Bowling Green, died April 13, 1980. Doctor Donnelly was a general surgeon and had been a member of KMA since 1947. He was a 1943 graduate of the Tennessee College of Medicine.



Headquarters Activity

JUNE

10 *Journal* Editors, Louisville

10-12 State Medical Board Exams, Louisville

12 CME Committee, Louisville

18 Kentucky Medical Assistants Advisory Council, Frankfort

18-19 Emergency Medical Care Seminar, Louisville

24-25 Washington Dinner, Washington, D.C.

JULY

8 *Journal* Editors, Louisville

20-24 AMA Annual Meeting, Chicago

31 Claims and Utilization Review Committee, Louisville

AUGUST

6-7 KMA Board of Trustees, Louisville

12 *Journal* Editors, Louisville

It's smarter to

LEASE

cars, trucks and equipment

NO CASH NEEDED

Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

FAMILY PRACTITIONER wanted for small group practice in Central Kentucky from 7-1-80 to 7-1-81. If interested please contact Ben F. Roach, M.D. or Norman S. Fisher, M.D., 102 South Winter Street, Midway, KY 40347 or phone (606) 846-4445.

INTERNAL MEDICINE PRACTICE for sale. Louisville, established solo with full office equipment and experienced staff. Loyal patient following. Excellent hospital facilities. Will introduce. (502) 451-4125.

FAMILY PHYSICIAN wanted for small community in South Central Kentucky. Notify George Thompson, Mayor, Box 87, Crab Orchard, KY 40419, or call (606) 355-2319 or 355-7501. With a drawing card of 6,000.

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition (502) 895-5429.

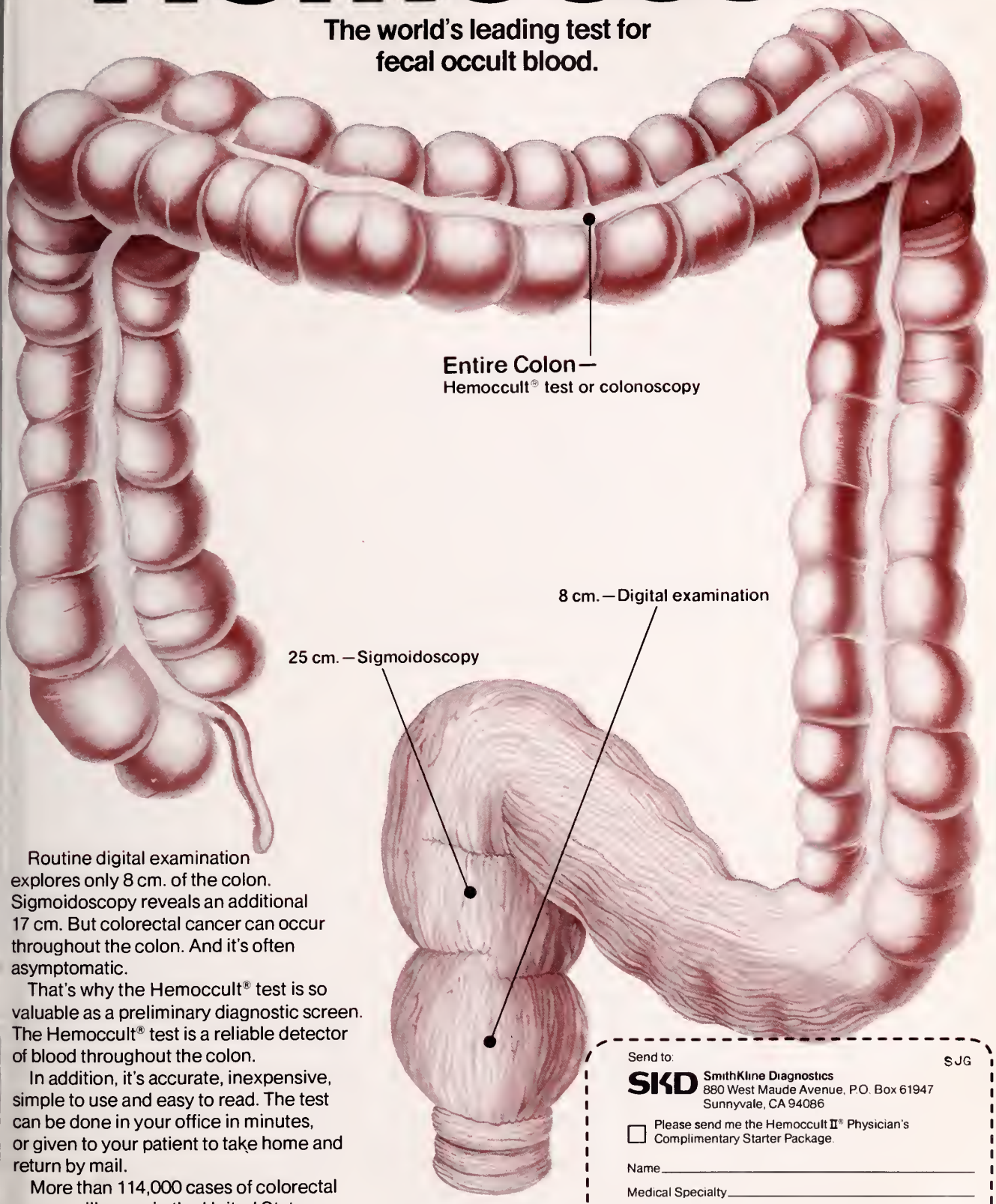
OFFICE SPACE in Professional Arts Building. New ultra modern facility located between Clarkson and Leitchfield, Ky. Contact V. F. Duvall, M.D. (502) 242-2311.

POSITION WANTED

ANESTHESIOLOGY, 36, FMG, Board Eligible, F.L.E.X., University Trained, Diverse Clinical Experience, Seeking Group Practice, (901) 386-7414.

Hemoccult®

The world's leading test for fecal occult blood.



Routine digital examination explores only 8 cm. of the colon. Sigmoidoscopy reveals an additional 17 cm. But colorectal cancer can occur throughout the colon. And it's often asymptomatic.

That's why the Hemoccult® test is so valuable as a preliminary diagnostic screen. The Hemoccult® test is a reliable detector of blood throughout the colon.

In addition, it's accurate, inexpensive, simple to use and easy to read. The test can be done in your office in minutes, or given to your patient to take home and return by mail.

More than 114,000 cases of colorectal cancer will occur in the United States this year. The earlier they are diagnosed, the greater the chances for successful treatment. Send for your free Hemoccult® starter package, today.

Send to: SJG

SKD SmithKline Diagnostics
880 West Maude Avenue, P.O. Box 61947
Sunnyvale, CA 94086

☐ Please send me the Hemoccult II® Physician's Complimentary Starter Package.

Name_____

Medical Specialty_____

Address_____

City_____ State_____ Zip_____

Phone_____

Hemoccult® is available through local distributors, nationwide.

© SmithKline Diagnostics, 1980


Perdiem
empties
the bowel
gently...
by filling it
Perdiem™ . . . the re-educative laxativ
. . . relieves constipation by a unique combination
physiological bulk stimulus and gentle pharmacolog
encouragement of peristaltic response
ROER
RORER
WILLIAM H. RORER, IN
Fort Washington, PA 19034



Made in West Germany

(Please see next page for prescribing information)

Perdiem™

Prescribing Information

ACTIONS Perdiem™ with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION Natural vegetable derivatives. A unique blend of psyllium and senna (Plantago Hydrocolloid with Cassia Pod Concentrate).

INDICATION For relief of constipation.

PATIENT WARNING Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN: From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

HOW SUPPLIED: Granules: 100 gram (3.5 oz.) and 250 gram (8.8 oz.) canisters.

Not Only— Seasons Change

Needs change. Lifestyles change. Sometimes opportunities don't meet expectations. Perhaps your professional environment no longer provides the challenge that's right for you. Or perhaps you and your family may be longing for an environment conducive to your free-time interests.

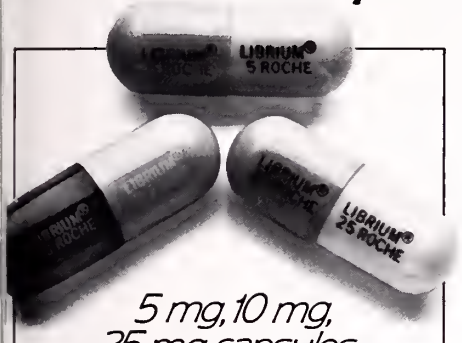
Times, places, opportunities change. We're specialists in change. Medseca consultant/placement specialists make a habit of matching the right physician with the right opportunity—be it a private or an Emergency Medicine practice. We can help you with your change. Talk to us now—in confidence—without cost, without obligation.

MEDSECO
Medical Search Consultants, Inc.
12605 East Freeway, Suite 608
Houston, Texas 77015
800 231-7888
713 451-2222(Texas)

MEDSECO

WILLIAM H. RORER, INC.
Fort Washington, PA 19034

Librium®
chlordiazepoxide HCl/Roche



5 mg, 10 mg, 25 mg capsules

- ☐ Proven antianxiety performance
- ☐ An unsurpassed safety record
- ☐ Predictable patient response
- ☐ Minimal effect on mental acuity at recommended doses
- ☐ Minimal interference with many primary medications, such as antacids, anticholinergics, diuretics, cardiac glycosides and antihypertensive agents

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

synonymous with relief of anxiety

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701

Please see following page.

Librium®
chlordiazepoxide HCl/Roche
5 mg, 10 mg, 25 mg capsules

19 South 22nd St.
Philadelphia, PA 19103



synonymous with relief of anxiety

ROCHE

Please see preceding page for a summary of product information.

Acute Necrotizing Colitis

Empyema Caused by Clostridium Perfrigens

Histoplasmin Sensitivity in Kentucky

July 1980
Volume 78
Number 7

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

NDS

AUG 5 - 1980

The Journal Of The Kentucky Medical Association

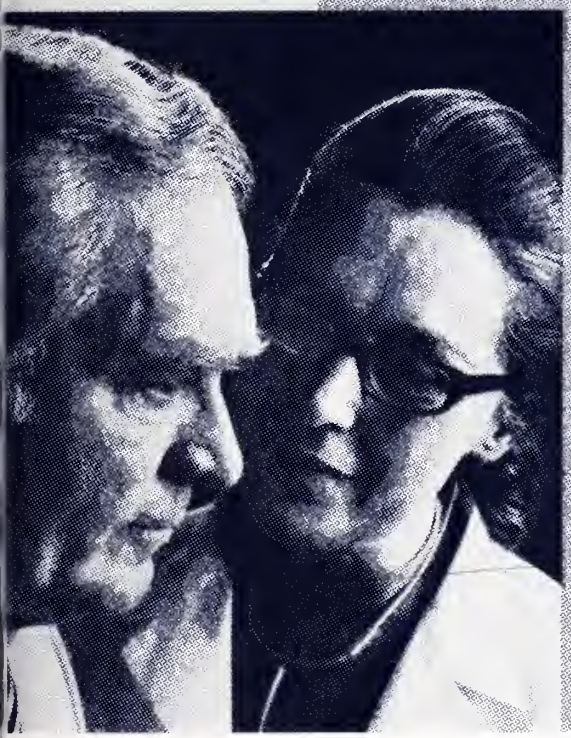
19 South 22nd St.
Philadelphia, PA 19103



proven antianxiety

Highly specific calming action virtually free of unwanted side effects: this was the remarkable clinical promise of Librium (chlordiazepoxide HCl). And today this promise continues to be fulfilled in a wide variety of patients you see every day.

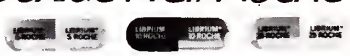
ROCHE



The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium® (IV)
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules

synonymous with relief of anxiety

- ☐ An unsurpassed safety record
- ☐ Minimal effect on mental acuity, in proper dosage
- ☐ Predictable patient response
- ☐ Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally; making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults*: Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients*: 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

ROCHE Roche Products Inc
Manati, Puerto Rico 00701

Postgraduate Opportunities

JULY

19-20	KAFP Summer Seminar, Owensboro
29-2	ACP-MKSAP V, Hyatt Regency, Louisville

SEPTEMBER

3-4	Hypertension 1980, Hyatt Regency, Louisville
4-6	Gynecologic Surgery, Hyatt Regency, Louisville
22-25	KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

1-4	American Assoc. for Cancer Education, Hyatt Regency, Louisville
10	Critical Care Symposium, Jewish Hospital, Louisville
27-29	Mid-America College Health Assoc., Hyatt Regency, Louisville

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*

Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506 (606) 233-5161

Headquarters Activity

JULY

8	*Journal* Editors, Louisville
10	Paramedic Advisory Committee
20-24	AMA Annual Meeting, Chicago
31	Claims and Utilization Review Committee, Louisville

AUGUST

6-7	KMA Board of Trustees, Louisville
12	*Journal* Editors, Louisville

SEPTEMBER

9	*Journal* Editors, Louisville
22-25	KMA Annual Meeting, Louisville

Volume 78 • July 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

Acute Necrotizing Colitis With Distal Carcinoma
Carl W. Liebert, Jr., M.D., FACS 399

Empyema Caused by *Clostridium Perfrigens*
N. Reddy Akavaram, M.D., Nasiruddin Khokhar, M.D. and Palamalai Mahizhnan, M.D. 402

A New Appraisal of Histoplasmin Sensitivity in Kentucky
Ernest W. Chick, M.D., Suzanne B. Compton, B.S., M.T., Ted Pass, III, Ph.D., Frank R. Pitzer, M.D., Clyde Flanigan, Ph.D., Bill Mackey, B.A., Calixto Hernandez, M.D. and E. Austin, Jr., M.P.H. 405

Diagnostic Peritoneal Lavage, A 10-Year Overview (Grand Rounds)
Charles R. Sachatello, M.D., Brack A. Bivins, M.D., Michael E. Daugherty, M.D. and Ward O. Griffen, Jr., M.D. 418

SPECIAL ARTICLE

Fluoridation in Rural Kentucky 409

EDITORIAL

PCG 416
Can the *KMA Journal* Be Improved 416

ASSOCIATIONAL NEWS

Workshops Keep Participants Involved at Emergency Medical Care Seminar 428
Doctor Kleinert Receives Scientific Achievement Award 430
Annual Meeting Information 431, 437, 438, 439
KMA Physician Recruitment Fair Scheduled for October 4 431
Six New Loans are Awarded at RKMSF Annual Meeting 432
Report of CME Activities 432

REGULAR FEATURES

Postgraduate Page 390
President's Page 397
Manuscript Information 407
CME 411
KMA Cancer Committee 415
Book Reviews 425
Members in the News 430
Cost Consciousness 432
Headquarters Activity 390

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscription $15
(Members $750)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **ASSOCIATE EXECUTIVE EDITOR**
Joseph A. Witherington, Jr.

• **MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 1980

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3905 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

JULY BUYERS GUIDE FOR JOURNAL OF KMA

AAPHRR 442
Boots Pharmaceuticals 393, 394, 395, 396
Burroughs Wellcome Co. 414
Classified Column 440
General Leasing Corporation 440
Insurance Corporation of America 398
Kentucky Medical Insurance Corporation 426
A. P. Lee Agency 408
Eli Lilly & Company 410
Medical Protective Company 437
Merrell-National Inc. 412, 413, 422, 423
Roche Laboratories 387, 388, 389, 424, 443, 444
U of L (Faculty Team Supervisor) 431
U of L (Associate Dean) 432
U of L (Faculty Position) 438
Wyeth Laboratories 435, 436, 440, 441

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1 Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8—5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10—20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq elemental potassium. The usual preventative dose of potass 20 mEq per day while therapeutic doses range from 30 m 100 mEq per day. Because of the potential for gastrointe irritation, undiluted large single doses (30 ml or more) or T are to be avoided.

Deviations from this schedule may be indicated, since no av total daily dose can be defined, but must be governed by observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a pre tion.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the foll ingredients:

Pentylenetetrazol	
Niacin	
Vitamin B-1	
Vitamin B-2	
Vitamin B-6	
Vitamin B-12	
Choline	1
Inositol	
Manganese (as Manganese Sulfate)	
Magnesium (as Magnesium Sulfate)	
Zinc (as Zinc Sulfate)	
Iron (as Ferric Pyrophosphate, Soluble)	
Alcohol	

INDICATIONS AND USAGE: SU-TON contains pentylenet which may be helpful in the older patient as an analeptic when mental confusion and memory defects are present. S also contains vitamins, trace minerals, and iron, for those p who may benefit by preventing the development of a defi

CONTRAINDICATIONS: Epilepsy, convulsive disorders or history of sensitivity to any of the listed active ingredients

WARNINGS: The safety of this preparation during pregnan lactation has not been established. Use of this drug requir the physician evaluate the potential benefits of the drug any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contra tions to pentylenetetrazol, it should be used with cau epileptic patients or those known to have a low cor threshold or a focal brain lesion. Caution should be ex when treating patients with high doses of SU-TON who hav disease. While pentylenetetrazol does not act directly myocardium, the results from central vagal stimulation cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high dos produce toxic symptoms typical of central nervous stimulants, which act on the higher motor centers and th cord. Convulsions resulting from this drug are spontane are not induced by external stimuli. They usually last for minutes and are followed by profound depressi respiratory paralysis. Death has been reported from the in of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been report SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose due principally from overstimulation of the central system and from excessive vasodilatation with re autonomic nervous system imbalance. The symptoms may the following: vomiting, agitation, tremors, hyperreflexia ing, confusion, hallucinations, headache, hyper tachycardia. Treatment consists of appropriate sup measures. If signs and symptoms are not too severe patient is conscious, gastric evacuation may be accompli induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate tion and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful times a day 20-30 minutes before meals. This drug is not children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-

CAUTION: Federal law prohibits dispensing without a tion.

AP-001 5-80 Printed in

NO
POSTAGE STAMP
NECESSARY IF
MAILED IN THE
UNITED STATES

BUSINESS REPLY MAIL

First Class Permit No. 1563, Shreveport, LA.

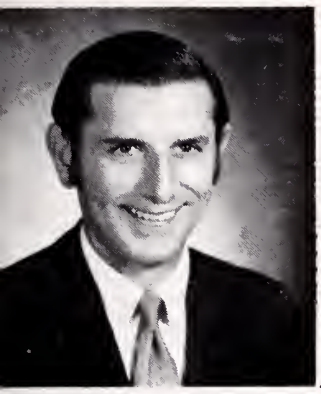
Postage will be paid by addressee

BOOTS PHARMACEUTICALS, INC.

Department 0
6540 Line Avenue
Shreveport, LA. 71106

BOOTS PHARMACEUTICA INC.

Shreveport, Louisiana 7110
Pioneers in medicine for the



PRESIDENT'S PAGE

AMA: Confrontations of Concern

AS a naive medical student in Chicago, a few blocks from the 535 North Dearborn Headquarters of the American Medical Association, I thought that all problems of the health delivery system could be solved by rational people with the concerned guidance of the AMA. After 15 years in the AMA House of Delegates, I still believe that possible, but I wonder when the rational people will get together. The AMA, attempting to represent all physicians to further the public welfare, has peculiar problems not shared by other medical organizations. Its very nature perpetuates expensive, non-revenue producing activities about which all physicians can never agree. There seems to be a list, continuously changing, of problems about which individual physicians can agree but collectively forever feud and fuss, thereby ending the solidarity which could enable us to overcome our adversaries.

I would like to document a partial list of current confrontations.

Medical Education

Matters related to medical school curicula, standards, internship, residency training, specialty board certification and recertification have created a conflict between the AMA, American Association of Medical Colleges, American Board of Specialty Societies, ACP, ACS and others. AMA would like to assert leadership, but the intrinsic constituencies of various groups all behave like a longhorn cattle stampede. Who will provide the necessary national leadership?

Government Programs

FTC, Medicare, Medicaid, VA, crippled childrens services, health planning, state and local health departments, department of defense, NHI Proposals, Medical Licensure and physician competence are only a partial list of problems. Will the politicians resolve the chaos? Is a strong concerted national leadership from the most knowledgeable group (AMA) necessary?

Medical Profession

Disgruntled individual physicians, the surgeons, the orthopaedists, the radiologists, and so on are now at loggerheads with the AMA about the chiropractors. Can the umbrella organization (AMA) resolve the conflicts so that we can once again concentrate on protecting the public from unqualified practitioners?

Hospitals

Medical care is delivered by physicians in hospitals; not by the hospitals. Will the future bring sufficient cooperation between physicians and hospitals so that CAT scans, open heart surgery, obstetrical services, emergency rooms, and so on, will be available to meet the public needs in a humane and cost efficient system?

I still believe the medical societies (local, state and national) working in concert, if adequate physician support continues, can ameliorate the problems and help us all get about the business of treating patients. So your support is needed—please keep your cards, letters and dues coming in. If not the AMA, who?

DAVID B. STEVENS, M.D., SENIOR DELEGATE TO THE AMA

This is the fourth in a series of articles written at the request of KMA President, Robert S. Howell, M.D.



SOME MALPRACTICE INSURANCE POLICIES SETTLE FOR JUST ANYBODY.

Today, all too many people are finding it easy to sue. And unfortunately, all too many insurance companies are finding it easier on themselves to settle. Quickly and out of court. Little thought is given to defending your reputation.

In fact, your insurance company may not even give you an option to fight a claim. Or if you do have that option, you can be hit with a costly penalty for going to court.

And there are other ways your insurance company may not stand behind you. For instance, chances are to save costs and time your company will use a claims adjuster to handle your case. Not a lawyer.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working hard for doctors. We know the strong coverage and knowledgeable service physicians need from their liability insurance. And because we specialize in this one field, we can offer a superior policy at a realistic premium. Premiums based on actual costs in your state.

Don't settle for just any insurance. Get a policy that really stands behind you. Contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas phone 1-800-231-2615.

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF IC

The Journal Of The Kentucky Medical Association

July 1980 Volume 78 Number 7

Acute Necrotizing Colitis With Distal Carcinoma

CARL W. LIEBERT, JR., M.D., FACS

A case report of an unusual entity, that of acute colitis proximal to a non-obstructing carcinoma with an interval unaffected zone of completely normal colon has been reported. Management of this unusual entity is discussed. No satisfactory mechanism for the development of this colitis has yet been postulated.

ACUTE colitis has been frequently described as a complication of obstructing carcinoma of the colon.[2,3,4] Also numerous reports show the association of carcinoma and chronic ulcerative colitis with malignancy developing in bowel with long standing colitis.

There are, however, only two reports of necrotizing colitis proximal to a non-obstructing carcinoma of the colon. The critical point of distinguishing this most unusual entity is the finding of a segment of completely normal bowel between the colon malignancy and the proximal colitis.

Millar[1] in 1965 reported three such cases, the length of interval normal bowel being from 8 to 20 cms. In discussing colitis proximal to obstructive colonic carcinoma Tietjen and Markowitz[3] included three such cases. Here the tumors were compromising but not obstructive with a considerable zone of normal bowel before encountering the proximal necrotizing colitis. The most widely held theory of associated colitis i.e., severe changes secondary to acute and chronic distal obstruction obviously are not tenable in this situation.

Case Report

The patient, an 87-year-old white male, was admitted with fever, chills, nausea, vomiting and an acute surgical abdomen; leucocytosis was 21,000. The abdomen had no localizing findings and the preoperative diagnosis was perforated appendix with generalized peritonitis. At laparotomy, a necrotic odor was present immediately upon opening the peritoneal cavity. The positive findings were limited to the descending and sigmoid colon. At the rectosigmoid junction was an annular carcinoma. Proximal to this no area of obstruction or distended bowel was present and

an area of intense colitis extended to about mid-descending colon. The bowel wall appeared necrotic. An area of normal bowel of about 8 cms in length was between the tumor and the colitis.

A Hartmann operation was carried out closing the rectal stump and creating a descending colon colostomy. Post-operatively the patient did well, gradually improving until the fifth post-operative day when he developed a Bacteroides septicemia which responded well to IV chloromycetin. Slow improvement followed briefly but his general cardiopulmonary status deteriorated and he expired on his 31st hospital day. Post-mortem exam confirmed the cause of death to be severe cardiopulmonary failure.

Pathology

Gross

On inspection the colitis segment showed a purple-red duskiness of the serosa and friability of the wall was apparent throughout. The mucosa was hemorrhagic with suggestive linear mucosal loss. A fibrinous exudate was present throughout the mucosa. The tumor was sharply delineated from the adjacent normal bowel, encircling, compromising but not obstructing and with central ulceration. It measured 3.5 cms in length. Approximately 8 cms of intact, non-inflammed mucosa separated the tumor from the hemorrhagic friable bowel. Sectioning into the pericolic tissue throughout reveals no thrombotic occlusion.

Microscopic

Sections through the grossly described colonic mass show proliferating neoplastic glandular structures of rather small size. These glands are closely associated and have conspicuous bridging with some budding. The glands are lined by hyperchromatic round or ovid nuclei presenting conspicuous piling up. Nuclear variation in size and shape is moderate. Mitotic activity is frequent. (Fig. 1 and 1A) The neoplastic glands extend into pericolic adipose tissues. Nodal involvement is not present. Sections through the colon presenting gross hyperemia with evident ulceration show extensive areas having mucosal loss. At these sites of mucosal loss abundant fibrinous material is present with associated polymorphonuclear leukocytic infiltration. The leukocytes in turn are undergoing necrosis. Submucosal edema is prominent. Vascular ectasia is evident throughout all layers. Within the muscularis and within the serosa again abundant leukocytic infiltrates are seen. On the serosal surface a fibrinous exudate is present. The areas of definite wall necrosis appear to be limited to the areas of ulceration. Some intervening bands of mucosa are seen having intact glandular structures. (Fig. 2 and 2A)

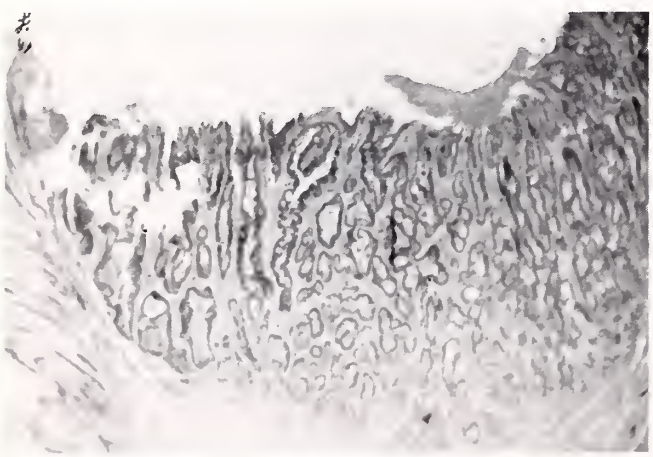


Fig. 1: Adenocarcinoma, sigmoid colon [25X]

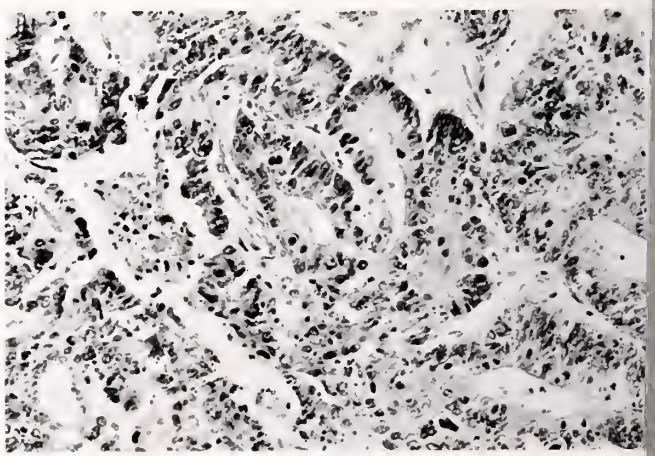


Fig. 1A: Adenocarcinoma, Sigmoid Colon [203X]

Comment

Clinically when admitted all these patients had symptioms consistant with an acute surgical abdomen with generalized peritonitis. After proper evaluation all were taken to the operating room for exploration.

When such a colitis is encountered the surgeon should be aware of the possibility of a distal colon malignancy and make a careful search for it. The symptoms in all cases appeared to arise from the acute colitis rather than the malignant lesion or obstruction.

Here the surgeon is faced with the need for a generous colon resection in the face of generalized peritonitis and unprepared bowel. Here is an ideal adaptation for the primary resection without anastomosis, i.e., the Hartmann[5,6] procedure. The Hartmann operation eliminates the disease process by excisional resection, the distal rectal stump is closed and proximal normal bowel is brought out as an easily manageable single barrel descending colon colostomy and matured immediately. Both the diseased areas may be excised and the segment of colitis eliminated with the tumor. Anastomosis in unfavorable circumstances can be avoided and, thereby, completely eliminate many of the major post-operative complications that these patients would be subject to.

Anastomotic leak, fistula and stenosis are automatically avoided.

No satisfactory mechanism for the development of the colitis has yet been postulated that will account for the interval zone of normal bowel.

References 1. Millar D M Colitis and Antecedent Carcinoma *Dis Col and Rect* 8(4)243-47 July Aug 1965. 2. Addleman Wm: Obstructing Carcinoma with Acute Proximal Ulcerative Colitis *Am. J. Castro.* 40 (174-78) 1953. 3. Tietjen G W and Markowitz A M Colitis Proximal to Obstruction Colonic Carcinoma *Arch Surg* 110:1133-38 Sept. 75. 4. Hurwitz A, Khafif Rene A: Acute Necrotizing Colitis Proximal to Obstructing Neoplasms of the Colon *SGO* 111(749-52) Dec 1960. 5. Watkins G L, Oliver G A, Surgical Treatment of Acute Perforative Sigmoid Diverticulitis *Surgery* 69 (2) 215-219 Feb 1971. 6. Nunes G C et al, The Hartmann Procedure for Complications of Diverticulitis *Arch Surg* 114 (425-430) April 1979.



Fig. 2: Colitis [25X]

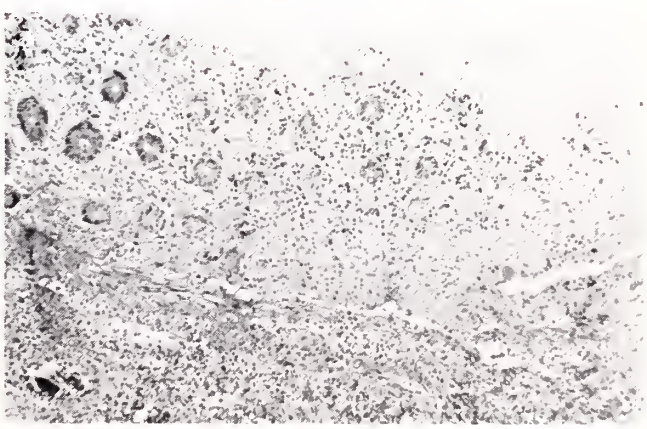


Fig. 2A:Colitis [102X]

Empyema Caused by *Clostridium Perfrigens*

N. REDDY AKAVARAM, M.D., NASIRUDDIN KHOKHAR, M.D. AND PALAMALAI MAHIZHNAN, M.D.

A case of thoracic empyema due to *Clostridium Perfringens* is described. The patient was a diabetic and had no history of chest trauma, surgery or apparent pulmonary disease. Despite surgical drainage and antibiotic therapy, the patient developed complications and expired.

ALTHOUGH anaerobic bacteria frequently cause pleuropulmonary infections, clostridial infections are rare in the absence of trauma to the chest or surgery. Many such patients have underlying pulmonary disease. Only 15 well-documented cases have been reported in the literature. We describe an additional case of empyema due to *Clostridium Perfringens.*

Report of a Case

A 58-year-old man was admitted to the Veterans Administration Medical Center, Dayton, Ohio, on August 1, 1976, with a low-grade fever and lethargy of two days' duration. He denied any cough, dyspnea, hemoptysis or chest pain. He had a history of diabetes mellitus for 10 years, had been diagnosed as having diabetic nephropathy and retinopathy, and was on NPH Insulin. The patient had a history of fall on the day of admission with injury to his right-hip area. He had been taking three or four buffered aspirin daily for two months. The patient had a long history of alcoholic ingestion and had vomitted several times before admission to the hospital.

Physical examination revealed a well-developed lethargic man with blood pressure of 110/65 mm Hg, pulse of 100/min, regular and respiration of 20/min. His temperature was 99.4° F orally. Examination of lungs revealed few rales over left base. Cardiovascular, abdominal and neurological examination was unremarkable. Stools were positive for occult blood. There was a moderate size hematoma on the right thigh. Laboratory data showed hematocrit of 16% and WBC count of 4700/cmm with normal differential. Blood sugar was 326 mg/dl. Chest x-ray showed faint infiltrate in left lower lung field. Electrocardiogram showed sinus tachycardia with ST-T changes. Arterial blood gases at room air revealed pH of 7.43, PO_2 47 mm Hg and PCO_2 32 mm Hg.

In the medical intensive care unit a nasogastric tube was placed and the aspirate gave strongly positive guaiac test. Four hours later the patient became hypotensive and four units of whole blood were transfused. On the second hospital day gastroscopic examination revealed esophageal and gastric mucosal erosions. The patient was treated with antacids. On the third hospital day his temperature was 101.4° F and chest examination revealed signs of pleural effusion on the left side. Chest x-ray showed homogenous density involving entire left lung with mediastinal shift to right (Fig 1). A thoracentesis was performed and pleural fluid was found to be purulent and foul-smelling. Gram stain showed gram-positive rods with subterminal spores, many pus cells and

From the Medical Service, Veterans Administration Medical Center and Wright State University School of Medicine, Dayton, Ohio

some gram-positive cocci. Culture of fluid later grew *Clostridium perfringens, Klebsiella pneumoniae, Escherichia coli,* Streptococci and coagulase positive Staphylococci (Fig 2). Pleural fluid LDH was 628 units, proteins 3.1 gm and leukocyte count was 6000/cmm with 98% polymorphonuclears. Patient was started on intravenous penicillin 3 million units every four hours.

A thoracostomy was done with drainage of about 1000 ml of purulent material. However, the patient became more lethargic and confused. An esophagogram showed communication of the esophagus with pleural space. A thoracotomy was done and the tear was repaired. Gentamycin, clindamycin and ampicillin were started and penicillin was discontinued. Postoperatively the patient developed respiratory failure and was placed on ventilator. However, his condition continued to deteriorate, he developed renal failure, gastrointestinal hemorrhage and shock and expired on the 22nd hospital day.

Discussion

With the increasing knowledge of culture technics, anaerobic bacteria are easily identified as causative agents in pleuropulmonary infections.[1-4] Clostridial infections, however, are uncommon. In a large series of aspiration pneumonias, clostridia were isolated only in 10% of the patients.[5] In 83 cases of bacterial empyema reported by Bartlet et al, clostridial species were identified in 13 patients;[3] of these, three were due to *Clostridium Perfringens.*

Characteristically, anaerobic pleuropulmonary infections occur in association with injuries of the chest or surgery.[4] Most patients who develop clostridial infections without trauma or surgery have some type of predisposing or underlying factor[1,4] (Table 1).

Aspiration of the oropharyngeal secretions is most often a predisposing cause[1] and in most cases the flora is mixed.[3,5] In addition, clostridial or-

TABLE 1
COMMON UNDERLYING OR PREDISPOSING CONDITIONS IN ANAEROBIC PLEUROPULMONARY INFECTIONS

(1) ASPIRATION
- Altered Consciousness
  - Alcoholism, Drug Ingestion
  - General Anesthesia
  - Cerebrovascular Accident
  - Seizure
- Tonsillectomy, Tooth Extraction
- Gastrointestinal Dysfunction
  - Abnormal Esophageal Motility
  - Achalasia
  - Intestinal Obstruction

(2) PRECEDING EXTRAPULMONARY ANAEROBIC INFECTION
- Periodontal Disease
  - Gingivitis, Periodontitis
- Pharynx, Otitis, Mastoiditis
- Uterus, Colon, Appendix

(3) POST-THORACOTOMY OR PENETRATING CHEST WOUNDS

(4) LOCAL UNDERLYING CONDITIONS
- Pulmonary Infarction
- Bronchogenic Carcinoma
- Bronchiectasis
- Foreign Body

(5) SYSTEMIC UNDERLYING CONDITIONS
- Diabetes Mellitus
- Malignancy
- Corticosteroid or Other Immunosuppressive Therapy
- Preceding Antibiotic Therapy



FIG 1: Chest x-ray on the third hospital day showing large left pleural effusion with gas.

ganisms may reach the pleural space from the skin during an invasive procedure like thoracentesis or thoracostomy,[4] by contiguous spread from lungs or by formation of a bronchopleural fistula.[3] Transdiaphragmatic spread from a subphrenic abscess[2,3] and hematogenous dissemination from a distant site of suppuration are less common.[3]

Pleural fluid in clostridial empyema, like other anaerobes, is generally purulent and foul-smelling. The mainstay of treatment is adequate drainage of pus, by closed or open thoracostomy, and administration of appropriate antibiotics for associated parenchymal infection.[2,3]

Unlike clostridial myonecrosis and gas gangrene, the clostridial pleural infections tend to run a benign course. The exact reason for this is not clearly known. Several factors have been postulated, including absence of spreading factor in the fluid,[6] inability of organism toxins and enzymes to play a pathogenic role in the pleural space,[7] probaby due to dilution of bacterial toxins in the pleural fluid[4] and protection of tissue by empyema wall from destruction. The patient under discussion presented with left lower lobe infiltrate and fever and developed anaerobic empyema due to primary infection with *Clostridium perfringens.* Although rupture of the esophagus like Boerhaaves' Syndrome might have played a signigicant role in the overall illness, we think that the patient originally came with pulmonary infection which later involved the pleural space. Since he was lethargic for sometime before admission to hospital, it is possible that he aspirated oropharyngeal contents during this period. While clostridial pleural infections generally have benign course, this patient died of other complications.

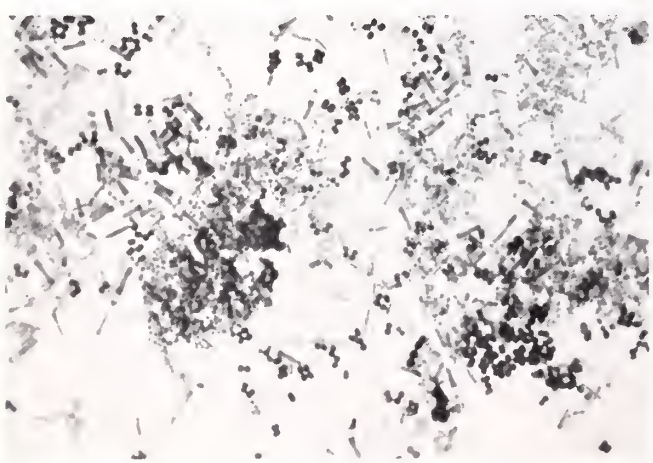


FIG 2: Smear from pleural fluid cultures showing clostridia and other organisms.

References 1. Bartlett JG, Finegold SM: Anaerobic pleuropulmonary infections. *Medicine* 51:413-450, 1972. 2. Bartlett JG, Finegold SM: Anaerobic infection of the lung and pleural space. *Am Rev Respir Dis* 110:56-77, 1974. 3. Bartlett JG, Gorbach SL, Thadepalli H, Finegold SM: Bacteriology of empyema. *Lancet* 1:338-340, 1974. 4. Bayer AS, Nelson SC, Galpin JE, Chow AW, Guze LB: Necrotizing pneumonia and empyema due to *Clostridium perfringens. Am J Med* 59:851-856, 1975. 5. Bartlett JG, Gorbach SL, Finegold SM: The bacteriology of aspiration pneumonia. *Am J Med* 56:202-207, 1974. 6. Malmborg AS, Rylander M, Selander H: Primary thoracic empyema caused by *Clostridium Sporogenes. Scand J Infect Dis* 2:155-156, 1970. 7. Bentley DW, Lepper MH: Empyema caused by *Clostridium perfringens. Am Rev Respir Dis* 100:706-710, 1969.

Editor's Note

This patient represents a case of esophageal rupture with contamination of the pleural space secondary to the rupture. This is not a case of primary pleural space infection.

A New Appraisal of Histoplasmin Sensitivity in Kentucky

ERNEST W. CHICK, M.D., SUZANNE B. COMPTON, B.S., M.T. (ASCP), TED PASS, III, PH.D., FRANK R. PITZER, M.D., CLYDE FLANIGAN, PH.D., BILL MACKEY, B.A., CALIXTO HERNANDEZ, M.D. AND E. AUSTIN, JR., M.P.H.

KENTUCKY is said to have the highest rate for histoplasmin reactors for both rural and urban areas (Ky. 67.3%, Tenn. 65.1%, Ark. 57.8% and Mo. 53.4%).[1] To a large extent this data is based on the nationwide studies by CDC[2,3,4] whose study population was naval recruits and, earlier, student nurse recruits, with an age range of 17-21 years. Figure 1 shows their histoplasmin sensitivity rates for Kentucky for 3,754 recruits. Furcolow[5] has presented the histoplasmin reactor rates for Kentucky based on 951 University of Kentucky students of approximately the above age group (Fig. 2).

More recently the Office of Mycology Research has undertaken a survey of populations across the state in reference to histoplasmin sensitivity in relation to blackbird roost sites.[6] Since this study of 7,653 persons includes all age groups, rather than selected age populations as above, the data to date may provide the practicing physician a better perspective of exposure to Histoplasma in the state.

Methods

Survey Areas were chosen to include positive (soil culture for *H. capsulatum*) sites of both disturbed and undisturbed conditions, negative (soil culture for *H. capsulatum*) sites, and counties with no known roost sites (Fig. 3). The study populations include random samples of persons within a 20-mile radius of a roost site, third and eighth grade students, and industry workers.

All participants completed a questionnaire including age, sex, race, geographic location of home and distance to roost site and any prior history of histoplasmosis. Each participant was skin tested with Histoplasmin* and results read after 48 hours. Measurements were made of transverse and vertical diameters of induration. (Additionally fungal serology and chest x-rays were obtained on positive reactors with follow up of any suspicious results).

Results

To date 7,653 persons have participated in the study with 48% having a positive reaction (5mm or greater in duration) to Histoplasmin. Figure 4 lists the reactor rate for the three major regions of the state.

Age distribution curves for each region and statewide is shown in Figure 5. Statewide the rate appears to peak in the age group 20-29 and then decline after the 40-49 age group. The same pattern is seen for the Central Region whereas the Western Region peak does not occur until the 30-39 age group. The distribution in the Eastern Region differs in having a slow but definite climb until the 60-69 age group.

Discussion

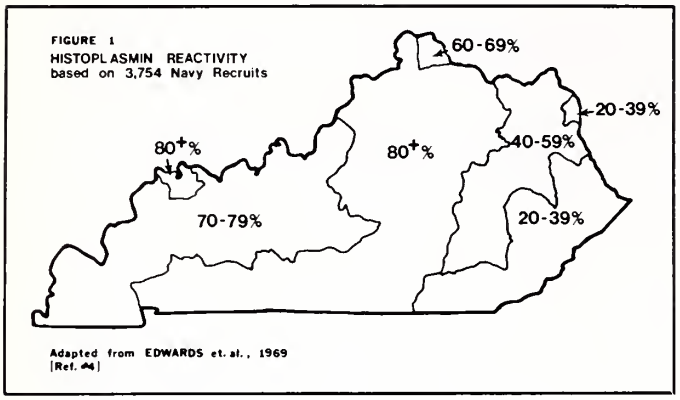
The overall state Histoplasmin rate of 48% differs from that of 67.3% reported by Ajello[1] whose data was based to a large extent on the studies by CDC and by Furcolow on populations ranging in age from 17 to 25 years. Table 1 compares

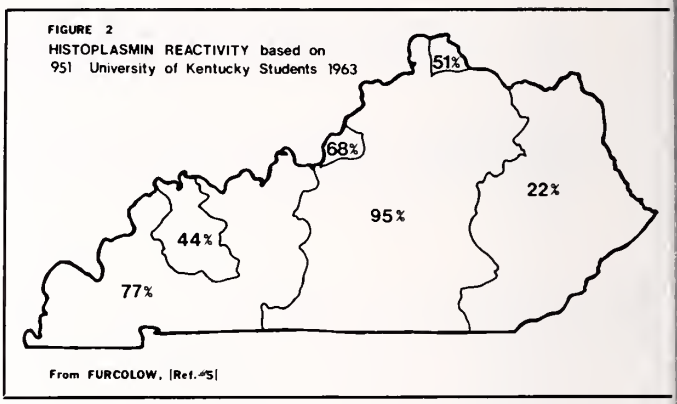
TABLE 1

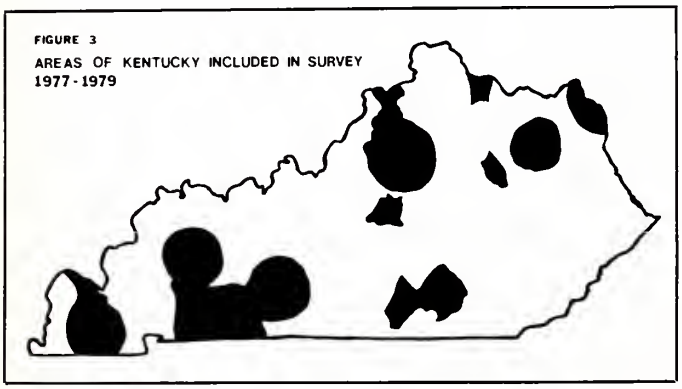
COMPARISON OF HISTOPLASMIN REACTIVITY IN SIMILAR AGE GROUPS BETWEEN THREE STUDIES

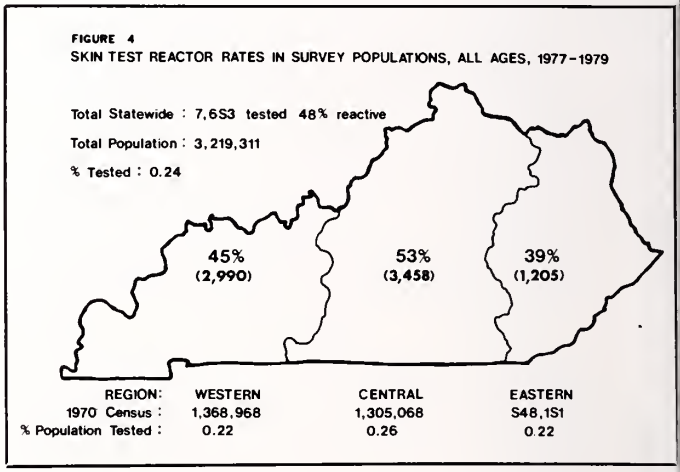
	STUDY		
REGION	CDC	FURCOLOW	PRESENT
Age	17-21	U. K. Students	20-29
Eastern	20-59%	22%	45%
Central	40-80+%	51-95%	71%
Western	70-80+%	44-77%	58%

From the Office of Mycology Research, Division for Preventive Services, Bureau for Health Services, Department for Human Resources, Paris and Frankfort, the Department of Biology, Morehead State University, Morehead, and the Jennie Stuart Memorial Hospital, Hopkinsville. *Supported in part by a contract from the Fish and Wildlife Service, U. S. Department of the Interior.*





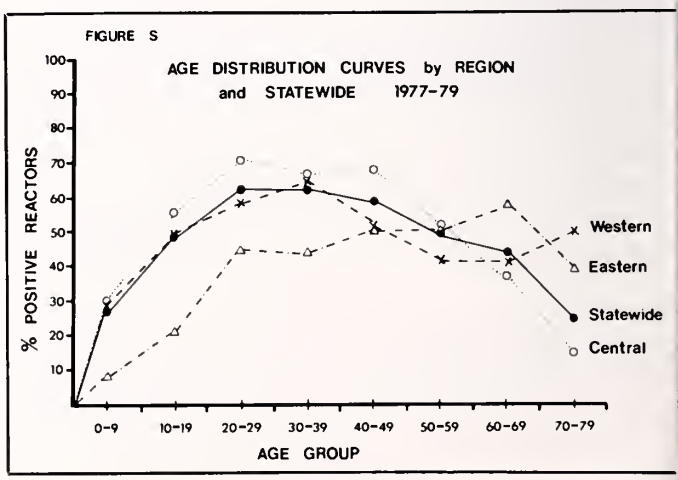




approximate age groups between those studies and the present study. In these specific age groupings the rates are reasonably comparable between the three studies. However, the rates for the above specific age groups certainly do not provide the appraisal afforded by complete age distribution curves of what the physician may expect in his practice where all age groups may be expected as indicated recently by Ferrell et al in a family practice setting.[7].

The age discrimination curves suggest that exposure to histoplasmosis is to a large extent a childhood phenomenon with the highest rates reached in early adulthood. With increasing age there is an apparent loss of reactivity.

The difference in the slope of the distribution curve for the Eastern Region when compared to



other Regions is puzzling. In an earlier survey[8] of approximately 2,000 persons in West Virginia, a similar slope curve was found. Both areas are mountainous with a low histoplasmin reactor rate. It would appear that in these areas exposure to histoplasmosis is at a low level through all ages rather than predominently childhood.

Of persons included in this study 57% lived near a positive roost site and 43% lived either near a negative site or where no known site exists. Thus the data presented for the state and its regions should reasonably express the general trends to be expected. However, one must bear in mind that these trends are greatly exceeded in areas immediately surrounding a positive roost site, particularly when such a site has been distrubed.[9]

Summary

Previous studies of Histoplasmin sensitivity in Kentucky have been based on young adult populations. Current statewide survey data indicates that a more appropriate appraisal of exposure to histoplasmosis may be attained through viewing populations of all ages.

*Histoplasmin, Parke-Davis

References 1. Ajello L: "Distribution of *Histoplasma capsulatum* in the United States" in *Histoplasmosis Proceedings of the Second National Conference*, ed. Ajello, Chick, Furcolow. Charles C. Thomas, Springfield, Ill. 1971, pg. 103-122. 2. Palmer C E, Edwards P Q, and Allfather N E: Characteristics of Skin Reactions to Coccidioidin and Histoplasmin with Evidence of an Unidentified Source of Sensitization. *Amer J Hyg*, 66:196-213, 1957. 3. Edwards P Q, Palmer C E: Nationwide Histoplasmin Sensitivity and Histoplasmal Infection. *U S Pub Hlth Rep*, 78:241, 1963. 4. Edwards Lydia B, Acquaviva F A, Livesay Verna T, Cross F W, and Palmer C E: An Atlas of Sensitivity to Tuberculin, PPD-B, and Histoplasmin in the United States. *Amer Rev Resp Dis* 99:1-132, 1969. 5. Furcolow M F, Clifford A L and Marting R E: *Histoplasma capsulatum* and *Blastomyces dermatitides* as opportunists in Human Beings in *Opportunistic Fungal Infections—Proceedings of the Second International Conference*, ed. Chick, Ballows, Furcolow. Charles C. Thomas, Springfield, Ill., 1975, pp 215-220. 6. Chick E W, Flanigan C, Compton S B, Pass III T, Gayle C, Pitzer F R, Hernandez C, and Austin Jr, E: Blackbird Roost and Histoplasmosis—An Increasing Medical Problem? *Chest* (In Press). 7. Ferrell J L, Chick E W, Caisley I, and Van Meter W S: Histoplasma Reactors in a Family Practice. *J Ky Med Assoc* 76:220-221, 1978. 8. Chick E W: 1966, Unpublished study data. 9. Chick E W, Compton S, Pass T, Mackey W, Hernandez C, Austin E, Pitzer F, and Flanigan C: Epidemic and Non-epidemic Exposure to Histoplasmosis from Disturbed Blackbird Roost Sites, *Jama* (Submitted for Publication).

Acknowledgment

The authors would like to express their appreciation to the field survey team who spent long and tireless hours in obtaining this data, Alice Holoch, B. S., Elaine Keding, R. N., Ann King, Carolyn McDonald, B. S., M. T. (ASCP), Brenda McIlvain, Jean Thompson, R. N., and Lynn Wells, R. N.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyrigh ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

PLEASE HELP!

TO ALL POLICYHOLDERS AND FRIENDS:

All the professional organizations are growing and we find it increasingly difficult to locate every new person entering practice. Since we feel that we write the best disability income protection at the most favorable rates, we would appreciate your advising us or the new associate or new person down the hall.

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

Fluoridation in Rural Kentucky

Fluoridation is a problem that primary care physicians in rural areas must contend with that their urban colleagues can take for granted. Most well water lacks natural fluoride and children without adequate fluoridation need fluoride supplement for prevention of dental caries. Since children see physicians years before going to the dentist, it becomes the responsibility of those of us who practice primary care to make certain that fluoridation education and supplementation is made available to these young people.

Most rural schools have fluoridation equipment available in their facilities, but not all. For example, in Carter County which has 10 schools, there are two schools without fluoridation in their water system. This equipment is available from the Dental Department of the Bureau of Health in Frankfort. Because of technical problems these two schools are unable to keep adequate fluoridation levels in their water supply. With the assistance of the dental hygenists from the local health department water samples were obtained from the children's home and sent to Frankfort for fluoride analysis. Those with low fluoride levels were given fluoride tablets or drops to take daily for fluoride supplement. Also available for school children is the fluoride rinse program which is administered by the county health department.

For preschool children with nonurban water supply, water sample bottles may be obtained from the health department and for those who need supplementation, fluoride drops and tablets are available.

The role of the Primary Care Practitioner is to educate families with preschool or elementary school children in regards to fluoridation and direct those younger patients without fluoridated water systems to the county or district health department. If the physician desires to be actively participating in the state program then he can write to Dental Health Branch Department for Human Resources, 275 East Main Street, Frankfort, Ky. 40621 or call (502) 564-3246

Resources: (1)

Kentucky Public and Semipublic Water Supplies
(401-KAR 6:010)
And Fluoride Regulations
(401-KAR 6:020)
Bureau of Environmental
Quality Department for Natural Resources
Frankfort, Ky.

Resources: (2)

The Physician's Responsibility in Dental Caries Prevention Systems Distributing Utilization
Wayne State University, Detroit, Michigan.

W. H. Matthew, M.D.
Karen Schaefer, Nurse Practitioner
Primary Care Center, Carter County
Grayson, Ky.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

Lilly

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

000482

Laser Photocoagulation Therapy of Diabetic Retinopathy

Photocoagulation of the retina is a dramatic therapeutic milestone, not just for ophthalmology but for the entire field of medicine. With it, we are able to control most cases of diabetic retinopathy, the most significant cause of blindness in the western world. However, primary physicians must understand and accept their role in the application of laser surgery, or the dramatic impact of this therapy will be lost. Laser surgery cannot be delivered once a massive intraocular hemorrhage has occurred. Thus, to achieve the four-fold reduction in blindness possible with laser surgery, patients must be treated before the disease has progressed to the stage of massive hemorrhage.

For such timely treatment to be achieved, it is suggested that primary physicians observe the following guidelines:

1. Monitoring the ocular status of a diabetic patient with a direct ophthalmoscope through an undilated pupil is a difficult and time-consuming task, especially in a clinical practice that includes a large number of diabetics. Nevertheless, a practitioner might elect to follow his own patients. In this case, he should refer to an opthalmologist any patient who develops proliferative retinopathy or who suffers visual impairment.
2. If the primary physician elects to have a consultant follow his patient's ocular status, then the following guidelines are useful:
   A. Juvenile onset diabetics should be seen by an ophthalmologist at least annually, beginning within five to seven years of their diagnosis.
   B. Maturity-onset diabetics should be seen by an ophthalmologist at least annually, beginning at the time of diagnosis of their diabetes.
   C. Any diabetic who experiences visual difficulties at any time should be instructed to consult his ophthalmologist.

By adhering to these guidelines, family practitioners, internists and pediatricians can help to offer diabetic patients one of the most spectacular therapeutic achievements of modern medicine.

Provided by the University of Louisville School of Medicine, Department of Ophthalmology, at the request of the KMA Continuing Medical Education Committee

Theory and Practice

According to the most popular theory, proliferative diabetic retinopathy is the result of vaso-proliferative factor secreted by the hypoxic diabetic retina. Photocoagulation presumably reduces the secretion of this factor by destroying hypoxic retina. This theory is supported by the clinical observation that even hypoxic retinal vascular diseases unrelated to diabetes cause proliferative retinopathy and respond to photocoagulation therapy.

In practice, retinal photocoagulation is relatively simple and safe. The ophthalmologist dilates the pupil and numbs the cornea with special drops. The patient then sits at a modified slit lamp to receive the treatment through a contact lens applied to his cornea. With a binocular microscope to view the fundus and a minutely controlled laser beam to deliver the photocoagulation, the ophthalmologist is able to achieve an unrivaled level of microsurgical precision.

Although the ophthalmologist strives to achieve a surgical "debridement" of hypoxic, devitalized retina, the associated morbidity is surprisingly small. If the patient experiences pain

during the surgery, a retrobulbar injection of xylocaine can be performed. Some patients may suffer a corneal abrasion from the contact lens, but this generally heals within a few days. The risk of catastrophic infection and expulsive hemorrhage usually assoicated with intraocular surgical procedures is altogether absent. Permanent visual loss can occur from inadvertent photocoagulation of the macula, severe macular edema, or vitreous hemorrhage, but these complications are extremely rare. Most patients suffer only a transient blurring of central vision, together with some permanent loss of peripheral vision and night vision.

In fact, the risk of blindness from proliferative diabetic retinopathy is several orders of magnitude greater than the risk of blindness from laser surgery. To achieve this extraordinary therapeutic index, however, the primary physician must refer the patient before vitreous hemorrhage shields the patient's fundus from the laser beam.

John W. Gamel, M.D.

Quinamm™

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

Merrell

MERRELL-NATIONAL LABORATORIES Inc
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®



8 3305 (Y371A)

for Knotts in the night



Quinamm™

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

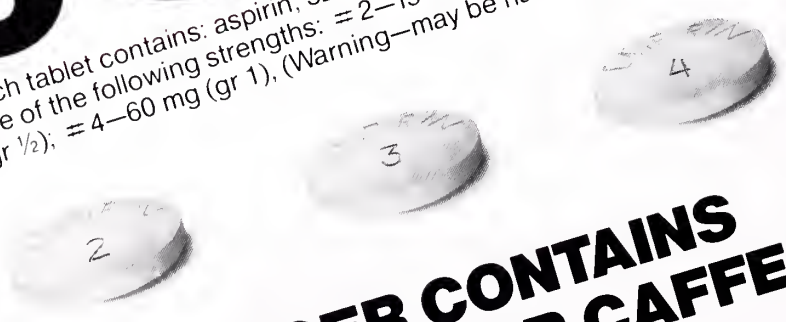
See opposite page for prescribing information.

~~EMPIRIN®~~
~~COMPOUND~~
~~C CODEINE~~
IS NOW

EMPIRIN® C CODEINE

Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: ≠2—15 mg (gr ¼); ≠3—30 mg (gr ½); ≠4—60 mg (gr 1), (Warning—may be habit-forming) C III





NO LONGER CONTAINS PHENACETIN OR CAFFEINE.

ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

The Cancer Related Health Checkup

A summary of the recommendations of the American Cancer Society is presented here for the cancer related health checkup. Certain recommendations have been disputed by the American College of Obstetricians and Gynecologists and their suggestions will follow.

American Cancer Society

Women, 20 years of age and older and those younger than 20 who are sexually active, should have a Pap test at intervals of three years after two initial negative tests a year apart.

Women, 20 to 40 years of age, should have pelvic examinations as part of the general physical examination every three years, and women over 40 should have a pelvic examination every year.

Women at menopause should have pelvic examinations, as well as Pap tests; those at "high risk" should have endometrial tissue examined. "High risk" was interpreted as a history of infertility, obesity, failure of ovulation, abnormal uterine bleeding or estrogen therapy.

Women over 50 years of age should have a mammogram every year. All women should have a base line mammogram between the ages of 35 and 40.

Women, 20 to 40 years of age, should have a breast examination by her physician each three years and women over 40 should have a breast examination by the physician each year.

All women, after age 20, should perform breast self-examination each month.

Men and women over 50 years of age should have a stool Guaiac slide test every year.

Men and women over 50 years should have a sigmoidoscopic examination every three years after two initial negative examinations a year apart.

Men and women over 40 should have a digital rectal examination every year.

Specifically excluded from these recommendations are the annual chest x-ray and sputum cytology to screen for cancer of the lung.

The American College of Obstetricians and Gynecologists, through its officers and Executive Board, has disapproved of the recommendations of the American Cancer Society in regard to the Pap smear, pelvic examinations and breast examinations. It is the opinion of that Executive Board and, undoubtedly, of the vast majority of members of the 24,000 specialists in this field in this College that Pap smears should be performed annually after the age of 20 years, that pelvic examinations should be performed annually after 20 years of age, and that breast examinations should be performed at least annually by a physician. Each woman is taught to perform breast self-examinations at monthly intervals.

These dramatic changes on the part of the American Cancer Society originated in its Public Education Committee with its generous proportion of lay people, who appear to this reporter, to have a primary interest in the economics of medical care. A great effort to reduce costs of medical care, appears to me to be the apparent reason for these changes. This follows the regulations in England and Canada where socialized medicine is proving quite expensive.

It is the opinion of many specialists in this field of medicine that new guidelines of the American Cancer Society for the health examinations of women are incorrect and not acceptable to this portion of the profession.

A summary of these findings has been discussed before the KMA Cancer Committee. The undersigned was requested to summarize this for the information of the members of the Kentucky Medical Association.

Undoubtedly the biases of the author are clear. Your responses are welcome and should be addressed to the Cancer Committee or the "Letters to the Editor" section of the *Journal.*

Laman A. Gray, Sr., M.D.

EDITORIAL

On May 28, 1980, an article appeared in the *Louisville Times* describing a fatal case of arsenic poisoning. The primary care physician was unsure of the diagnosis. Two consultants were called in. Neither was able to help. The patient expired. The diagnosis of arsenic poisoning was entertained the last few days of life, too late for effective therapy.

This is not a failure of medical care. Arsenic intoxication is uncommon; few practitioners ever see a case and to make a spot diagnosis in time would be unlikely.

However, I do think this case represents a failure of medical communication in a collective sense. Most of us labor alone, unaided, puzzled, frightened, defensive and yearning for a sharing of the burden. I wish every hospital staff would have a weekly conference where any practitioner could bring his difficult cases for discussion and collective consultation. We would all learn from the individual cases. And we might just find the undiscovered expert to make a specific diagnosis in a difficult case.

PCG

Can the KMA Journal Be Improved?

If you are satisfied with the *Journal of the Kentucky Medical Association,* there is no need to read on.

Well, if you are to this point, you join the ranks of us who are not satisfied with this Journal—your Journal. The editors, past and present have labored with some success to improve the quality of the Journal. Problems in advertising, revenue, layout and format, etc. are a continuing concern that are not routinely brought to you.

If your answer is, "Fine, these improvements have occurred subtlely, but what about content?" You're right. Content is a problem, but you must admit that the quality of articles published today is a far cry from a decade ago. However, there is still room for improvement.

The bottom line is, if you are not satisfied with the scientific content of the KMA Journal, you should realize that the Editors publish the best of what you send us. That's it. If you want better articles, write one!

Now before you quit reading and say the Editor has gone beserk, take a second and think this over. Your first response is likely to be, "Well, I don't have time because of the practice." Well, we have full-time practices too, and you should note that some of the finest articles in the Journal come from busy practice-oriented physicians like yourself. The next thing in rapid succession to go through your mind is likely to be, "Well, they like to write and I don't." Bull. I can assure you that I don't like to write and others will bear it out. In fact, I can count on the fingers of one hand those people that I know who genuinely enjoy this sort of thing.

It would be reasonable for your mind, trying to get out of seriously considering writing, to come up with a

third major obstacle, "We don't encounter anything publishable." This excuse is worse than the rest because there is an unreported goldmine of clinical data within the state. There are many diseases and conditions in which a case report is a valuable addition to the literature.

I know of two cases in Kentucky of chronic idiopathic intestinal pseudoobstruction (the Mayo Clinic reported eight), a case of documented chromium deficiency (two in the literature), two survivors of strongyloides colitis (five reported since 1963), and a duodenal web in an adult (37 previously reported). The report of any of these would be a bonafide contribution to the literature. You see cases like these too. Just consider the data generated locally by medical and surgical audits.

The reason you should consider writing and submitting an article is that you can make an honest contribution to the literature and it will be worthwhile for you. Not worthwhile perhaps in the sense that it will help in academic advancement or tenure, but rather that you will be better for it through acquisition of knowledge and self-discipline.

I'll bet you have considered reporting a case at some time but were unsure if a little work and the contribution were justified. If facilities are unavailable for a MEDLAR literature computer search in your location, write or call a medical school library. Not only will they send you recent reviews if available, they also will include a print-out of all pertinent articles revealed by the search.

After the data is assembled, it is time to put down a first draft. I think this is the hardest part, but it will be easier if you jot down a simple eighth grade outline as a guide first. Then, write the article in simple English Short, declarative sentences are golden. Robert Day has written a brief, eminently readable book, *How to Write and Publish a Scientific Paper,* ISI Press, 325 Chestnut St., Philadelphia, Penn. 19106. He includes jargon to avoid and preferred usage including:

Jargon	*Preferred Usage*
a majority of	most
accounted for by the fact that	because
end result	result
from the point of view of	for
has the capability of	can
in my opinion	I think
is of interest to note that	(leave out)

This book should be in the library of academicians and others who write. Its well organized chapters are brief and to the point. It even examines the rejected manuscripts and suggests in which cases to submit it to the same publication. If you simply follow his Ten Commandments of Good Writing, your paper is almost assured of success:

1. Each pronoun should agree with their antecedent.
2. Just between you and I, case is important.
3. A preposition is a poor word to end a sentence with.
4. Verbs has to agree with their subject.
5. Don't use no double negatives.
6. A writer mustn't shift your point of view.
7. When dangling, don't use participles.
8. Join clauses good, like a conjunction should.
9. Don't write a run on sentence it is difficult when you go to punctuate it so it makes sense when the reader reads what you wrote.
10. About sentence fragments.

JPM

Diagnostic Peritoneal Lavage A Ten-Year Overview

The simple concept that the presence of intraperitoneal blood indicates intraperitoneal injury and the reverse that the absence of intraperitoneal blood correlates with the absence of intraperitoneal injury was the basis for one of the most important advances in surgery during the 1970's. Validation of this concept in thousands of injured patients has reduced the number of previously unnecessary exploratory laparotomies while directing attention to those in need of abdominal exploration.

As early as the turn-of-the century a few surgeons tried to diagnose intra-abdominal bleeding in injured patients by aspirating blood from the peritoneal cavity. Paracentesis or four quadrant taps simply proved too unreliable. The false negative rate even with large amounts of intraperitoneal bleeding was and still is excessive.

The necessity of a reliable test to determine the presence or absence of intra-abdominal injury became increasingly apparent. Clinical observation proved inaccurate as large numbers of injured patients had negative and obviously unnecessary laparotomies.

Even worse was that intra-abdominal injuries were occasionally unrecognized in some patients, especially those with neurological injury.

The surgeon faced with the problem of blood loss and hypotension in injured patients began to look for more reliable techniques than the time honored serial hematocrit and WBC every two to four hours. Root and Olson among the earliest, were active proponents of peritoneal lavage as ancillary aides in the assessment of the severely injured patient.[1,2]

Principles of Peritoneal Lavage

The basic principle of peritoneal lavage is quite simple. A liter of normal saline or Ringer's lactate is instilled into the peritoneal cavity. The fluid is recovered and analyzed.

A variety of commercially available lavage kits are available. Most have in common a trocar to introduce the dialysis catheter and appropriate intravenous tubing. This trocar technique will soon be replaced by a modification of the Seldinger technique in which a catheter is placed over a guide wire.[3] This modification in technique will almost certainly prove to be safer than trocar technique and lead to even a wider acceptance of diagnostic peritoneal lavage.

Experimental Data

There is surprisingly little experimental data in laboratory animals relevant to diagnostic peritoneal lavage. Our own unpublished observations in dogs revealed a number of interesting findings.

When 50 to 100 milliliters of an animal's blood is injected into his peritoneal cavity it either does not clot or lysis so rapidly that no intraperitoneal clots are detected 30 minutes to an hour later. This observation, which had actually been known for years, permitted us to test the accuracy and reliability of peritoneal lavage. In a series of experiments, a known amount of blood was injected

This work was supported in part by the Jewel Fund for The Study of Intestinal Diseases. This paper is a summary of a series of Grand Rounds presentations given by the authors at the University of Kentucky Medical School, Albert B. Chandler Medical Center, Lexington, Kentucky 40536.

into the peritoneal cavity of a dog followed by peritoneal lavage of 10 to 15 ml/kg of normal saline 30 to 60 minutes later. The amount of the dialysis fluid recovered varied between 30 and 90% of the amount instilled. Hematocrit determinations on the perfusate recovered permitted an accurate measure of the amount of intraperitoneal blood injected. There was excellent mixing of even small amounts of intraperitoneal blood and the dialysis fluid injected within 10 to 15 minutes of peritoneal dialysis.

In another series of experiments the dog's spleen was ruptured or lacerated and allowed to bleed freely into the peritoneal cavity for several hours. Peritoneal lavage in these animals one to three hours later showed unexpectedly low hematocrits in the 2 to 6% range on the peritoneal dialysis fluid recovered. Re-exploration of the injured dogs showed that 50 to 90% of the blood loss was in the form of solid clots around the injured spleen. The dialysis fluid measured only a relatively low percent of total blood loss.

When the dog's liver was injured by either crush or laceration, the findings were quite different. Peritoneal lavage one to four hours later revealed hematocrits on the dialysis fluid in the 15 to 20% range. The re-exploration revealed that only 25% or less of the total liver bleeding was in clots. The clots from liver bleeding were much softer and more friable than those from spleen bleeding. This observation has not received much attention in the literature previously. There are several reasons why bleeding from an injured liver would clot less well than from an injured spleen. The liver contains heparin-like substances. Also, small amounts of bile mixed with blood interferes with clotting.

A summary of our 10-year experience follows:

Catheter Insertion

Insertion of the intraperitoneal catheter is a surgical technique which requires skill and training.[3] Visceral or vascular injury is a distinct possibility. The catheter can be inserted by either a percutaneous technique or by direct cutdown to the peritoneal cavity. The percutaneous technique should not be used in children, in patients with multiple previous abdominal operations, or in patients known to have extensive intra-abdominal adhesions. A nasogastric tube and urinary catheter should be inserted prior to the peritoneal lavage.

Dialysis Fluid

Either sterile normal saline or Ringer's lactate is acceptable. In adults, it is generally necessary to instill 1,000 ml to 1,500 ml in order to obtain adequate mixing and a satisfactory fluid return. Dextrose 5% in water should not be infused into the peritoneal cavity.

Analysis of Dialysate

The return of 30% or more of the volume infused of crystal clear fluid is excellent and reliable evidence of the absence of intraperitoneal blood. The probability of missing a major intra-abdominal injury was only 1.0% in a collected series of 4,500 patients.

The return of salmon-colored, blood tinged or frankly bloody fluid requires an objective measure of the amount of blood in the dialysate. Either a hematocrit or red blood cell count can be done on the fluid.

Clinical experience has shown that a hematocrit in the 2% range or higher frequently is indicative of significant intra-abdominal injury. A hematocrit of 2% means a minimum of 40 to 50 ml of intra-peritoneal blood loss. Hematocrits in the range of 0.1 to 1.0% are usually not associated with major intra-abdominal injury.[4,5]

Our practice has been to recommend laparotomy with dialysis hematocrits of 2% or more. Patients with dialysis in the 1 to 2% range have been managed individually. Repeat peritoneal dialysis four to 12 hours later is worthwhile and useful in many of these patients. Dialysis hematocrits less 1% are not usually associated with major injury. In selected patients repeat dialyses should be considered especially if there is further evidence of occult blood loss.

There is little hard data that analysis of the lavage for amylase is useful.

Clincial Observations

Diagnostic peritoneal lavage should be considered an invaluable diagnostic adjunct in the assessment of all seriously injured patients with blunt trauma. It is not reliable in penetrating trau-

ma such as knife wounds. It is not necessary for intra-abdominal gunshot wounds as all should be explored.

As a generality, peritoneal lavage should be performed on a very high percent of patients with neurological injury, unconsciousness, paraplegia, or quadriplegia. These patients frequently have multiple injuries and are extremely difficult to diagnose on clinical grounds. Similarly, this procedure is valuable in patients with occult blood loss, hypotension or a falling hematocrit. The greater the severity of the injury the more valuable peritoneal lavage is in clinical assessment and management.

It is difficult to know how many patients should be lavaged so as not to miss diagnosis intraperitoneal injury. With liberal indications the ratio of negative to positive lavages is in the ratio of three negative lavages to each positive lavage. In head injury patients, the ratio is of necessity much higher. There can be no question but that peritoneal lavage is superior to clinical acumen in diagnosing intra-abdominal blood loss in injured patients.[4,5]

Pelvic Fractures

Patients with pelvic fractures have had the highest rate of false negative diagnostic peritoneal lavages in our experience.[7] Apparently, blood can leak into the peritoneal cavity from large retroperitoneal hematomas. Also blood can be introduced into the peritoneal cavity by the peritoneal catheter itself if it traverses abdominal wall hematomas. With pelvic fractures it is probably better to use a supraumbilical approach rather than a low infraumilical approach to prevent the catheter traversing abdominal wall hematomas. It appears that several hundred milliliters of unclotted blood can leak into the peritoneal cavity without any obvious source other than retroperitoneal and preperitoneal hematomas.

Mesenteric Tears

Bleeding from mesenteric trauma acts much more like hepatic bleeding than splenic bleeding in that a high percent is nonclotted at the time of exploratory laparotomy. Mesenteric tears are associated with relatively high diagnostic lavage hematocrits, compared to the extent of injury.

Intestinal Rupture

One of our most serious reservations about diagnostic peritoneal lavage was its potential to mask or miss the presence of an intestinal perforation. Indeed, there can be no question whatsoever that it is possible for an intestinal blowout type injury to occur due to blunt trauma and result in a false negative lavage as only clear fluid is returned.

In looking more carefully at intestinal injury with blunt trauma, there appear to be several distinct mechanisms. The most common type of intestinal injury occurs when the intestines are crushed against the vertebra. This injury is almost invariably associated with a mesenteric tear. The bleeding from the mesentery is generally sufficient to result in a positive lavage. The intestinal rupture is recognized at laparotomy.

The second type of injury seen in blunt trauma is the intestinal blowout. This injury occurs when the intraluminal air is compressed and leads to increased pressure and a resulting blowout. This injury can and usually does occur without associated intra-abdominal bleeding. It can easily result in a false negative lavage as there is minimal if any associated bleeding. This injury is usually recognized days later when the patient develops signs of peritonitis.

The third type of intestinal injury is primarily ischemic in origin. A mesenteric hematoma develops due to blunt trauma. The vessels supplying a portion of the subadjacent bowel thrombose and the ischemic intestine either perforates or develops a structure days or weeks later.

We have seen examples of both the latter two types of bowel injury and both have resulted in false negative lavages. Fortunately these two types of intestinal injury rarely occur by themselves.

Acute Para- and Quadriplegia

Patients with acute cord lesions can and are frequently hypotensive with or without major blood loss. The near routine use of diagnostic peritoneal lavage in these patients is invaluable in initial assessment and resuscitation.[6]

Anecdotal Observations

It was initially thought that microscopic examination of dialysis fluid might facilitate diagnosis of intestinal rupture. In a 10-year period we know of only one patient who had a clear lavage in whom vegetable fibers were seen and led to a prompt diagnosis.

One young female presented 24 hours after a major auto accident in which she was apparently uninjured. She had an elevated white blood count, a low-grade temperature and severe abdominal pain with rigidity. A peritoneal lavage returned fluid without blood but with a high white count. When the dialysis fluid was centrifuged, the packed cell volume was 4%. A smear revealed these were all leukocytes, mostly polymorphonuclear cells. The patient was explored with the diagnosis of peritonitis due to perforated viscus. The operative findings were those of acute peritonitis without any detectable bowel perforation. The ultimate diagnosis was that the peritonitis was related to venereal disease.

Delayed Diagnosis of a Ruptured Spleen

We have seen at least four patients with blunt trauma who were initially considered to have no intra-abdominal injury but who presented days or weeks later with syncope and anemia. Delayed ruptured spleen was eventually diagnosed and all had grossly positive peritoneal lavage even as late as two to three weeks later.

On the other hand, we know of only one patient who had a clearly negative lavage initially who was found to have a delayed ruptured spleen several days later on exploratory laparotomy. She had a repeat diagnostic peritoneal lavage because of a falling hematocrit and abdominal pain.

Repeat Diagnostic Peritoneal Lavage

We have performed a modest number of repeat lavages hours to days later in severely injured patients. The usual indication was a falling hematocrit or apparently excessive blood loss. In only a few instances was the repeat lavage positive. Most of these patients had a fractured pelvis. On exploration no source of the intra-abdominal bleeding could be found except for the large retroperitoneal hematoma.

There is now good evidence that if peritoneal lavage is done relatively early following a pelvic fracture there is a very low incidence of false positive lavage, but if the lavage is delayed eight to 12 hours the likelihood of false positive lavage increases to 25 to 30%.

We have successfully managed a large number of patients with severe pelvic fractures who required multiple transfusions without the necessity of exploratory laparotomy simply on the basis of a negative peritoneal lavage.[7]

Ruptured Diaphragms

We have seen several patients with rupture of the left diaphragm without significant intra-abdominal bleeding and a negative diagnostic peritoneal lavage. In these patients the blood loss was more intrathoracic than intraperitoneal. The dialysis fluid was difficult to recover as it entered the chest via the diaphragmatic tear and was recovered by the chest tube.

The Dialysis Hematocrit as a Predictor of Organ Injury

In general there is little correlation with the dialysis hematocrit and the severity of the intra-abdominal injury. In humans, as in experimental animals, bleeding from the injured spleen tends to clot easily and the resultant free blood loss available for dialysis recovery is only a relatively low percent of the total blood loss. The highest dialysis hematocrits have been associated with capsular liver injuries. There is very little intra-abdominal clotting in many patients with hepatic bleeding.

Patients with Multiple Adhesions or Previous Operations

Diagnostic peritoneal lavage is both difficult to perform and substantially less reliable in patients with multiple adhesions. In these patients the peritoneal cavity is not one cavity but a series of multiloculated spaces. It is possible to have a major rupture of a liver or spleen so compartmentalized that the lavage fluid return has not admixed with the blood and thus is completely clear. These patients all must be treated individually using other methods to decide if laparotomy is warranted.

Newer Applications

Peritoneal lavage is now well established in both acute and chronic renal failure. Its role in the

evaluation of the patient with blunt trauma is invaluable. The role of peritoneal lavage in acute pancreatitis is still being evaluated. It is certainly not a panacea in acute hemorrhagic pancreatitis.

It is systematically being evaluated in diagnosing occult peritonitis. We have recognized an occult perforated viscus on several occasions in patients who were systematically ill but without peritoneal signs. The dialysis fluid was bilestained and showed large number of white cells in these patients.

Diagnostic peritoneal lavage will come to be as widely accepted as is lumbar puncture, thoracentesis and other invasive procedures in the diagnosis and management of a wide variety of intraabdominal conditions, whether traumatic, infectious, or malignant in origin.

References 1. Root HO, Hauser CW and McKinley CR: Diagnostic peritoneal lavage. *Surgery* 57:633, 1965. 2. Olsen WR and Hildreth DH: Abdominal paracentesis and peritoneal lavage in blunt abdominal trauma. *J Trauma* 11:824, 1971. 3. Sachatello CR and Bivins BA: Technic for peritoneal dialysis and diagnostic peritoneal lavage. *Am J Surg* 131:637, 1976. 4. Bivins BA, Sachatello CR, Daugherty ME, Ernst CB, and Griffen WO Jr: Diagnostic peritoneal lavage is superior to clinical evaluation in blunt abdominal trauma. 5. Bivins BA and Sachatello CR: Diagnostic exploratory celiotomy: an outdated concept in blunt abdominal trauma. *South Med J* 72:969, 1979. 6. Tibbs PA, Young Ab, Bivins BA and Sachatello CR: Diagnosis of acute abdominal injuries in patients with spinal shock: value of diagnostic peritoneal lavage. 7. Hubbard SG, Bivins BA, Sachatello CR and Griffen WO Jr: Diagnostic errors with peritoneal lavage in patients with pelvic fractures.

CHARLES R. SACHATELLO, M.D.
BRACK A. BIVINS, M.D.
MICHAEL E. DAUGHERTY, M.D.
WARD O. GRIFFEN, JR., M.D.

Tenuate®
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence.* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy.* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children.* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride). One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release. One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal diafysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M.: A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

Merrell

9 4672 (Y957A)

Overweight may not always be simple... complications can develop.*

Complicated or not...

Tenuate® Dospan® ℃ IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.

In G.I. therapy



Adjunctive Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide H is used alone, drowsiness, ataxia, confusion ma occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustme but also occasionally observed at lower dosage ranges. Syncope reported in a few instances encountered, isolated instances of skin eruptio edema, minor menstrual irregularities, nausea a constipation, extrapyramidal symptoms, increas and decreased libido—all infrequent, generally controlled with dosage reduction; changes in E patterns may appear during and after treatmen blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasio ally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision urinary hesitancy, constipation. Constipation ha occurred most often when Librax therapy is com bined with other spasmolytics and/or low residu diets.

ROCHE®

Roche Products, Inc
Manati, Puerto Rico 00701

Stephen Z. Smith, M.D.
Assistant Scientific Editor

Luke Pryor Blackburn

Nancy Disher Baird, University of Kentucky Press, 1980, 128 pages

This brief biography recalls the illustrious career and fascinating personal story of a native son physician and governor. To the archivist, Doctor Blackburn's life is a chronical of the peri-Civil War period. His early years were for the most part neglected in the book, an editorial decision by the author rather than a deliberate omission. A successful but at times rocky medical career was detailed. Itinerant and opportunistic, Dr. Blackburn located practices in Kentucky, Tennessee and Louisiana. Each settlement challenged his unique skills of medical acumen and political persuasion. Changing coats from the epidemiologist to the health planner to the infectious control officer, etc., he nevertheless continued to enjoy the role of a family practitioner. His experience with grass roots medicine undoubtedly matured his outlook and nurtured his ideas of medical development. Seemingly at the zenith of his career and yet obviously ready for a novel challenge, Dr. Blackburn answered the call to take up the Kentucky Commonwealth helm.

The author obviously admired this new direction and dedicated the body of the book with occasional exquisite details to this relatively brief transition period. From a humane origin in the medical world, Dr. Blackburn transposed his skills to the task of prison reform. Taking cue from the Inquisition days, Kentucky turnkeys promulgated much misery on the unfortunate felons, housed in abominable prisons. Although portrayed as a latter day messiah, certainly his wholesale pardons and inexorable will to transform the prisons fostered ill will and some calamity. A more complete picture of this period would have included more coverage of his detractors.

Nevertheless, the compact biography makes for an informative diversion and recalls the importance of the medical community's role in politics. The healing skills and compassion from experience with the infirmed offer a more than adequate foundation for dealing with many present government dilemmas.

Purine Metabolism in Man—III

Edited by Aurelio Rapado, R.W.E. Watts and Chris H.M.M. DeBruyn, Plenum Press, 1980, 459 pages

This decidedly specialized book is a compilation of a 1979 Madrid Conference on purine metabolism. In the symposium, acknowledged experts were sequestered and from their interaction this definitive work was obtained. At first purines were the domain of gout and urolithiasis research. However, the impetus of molecular biology and its more illustrious cousin, cancer research, have fueled interest in purine research. Actually, the title is a misnomer because pyrmidine metabolism, as a complement to the purines, is granted a rightful place in part of the book.

This work is not for the novice. Basic biochemistry and familiarity with preceeding research is fundamental to using this tome of information. Never meant to be introductory, this group of papers earns a place in the researchers reference source.

Most papers read easily, if complete recall was not a goal. Probably even more sophisticated material could be gleaned from the more than adequate and up to date bibliography. The papers were apparently photocopied in some fashion and converted for the printers press, so the writing style, printed page, illustrations, etc., are not uniform. Many foreign articles were translated either by the editors or primarily by the authors with fair success. The reader should forgive any differences in syntax, for the contents supercede such trivial detractions.

Overall the book, or rather this collection of papers, compresses years of basic research into 450 pages. It will be of certain value to the researcher and to us in the medical arena a reminder of our evolving scientific foundation.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858



OCTOBER 4, 1980, 1:30 p.m. - 5:30 p.m.

NURSING/HEALTH SCIENCES CENTER
UNIVERSITY OF KENTUCKY CAMPUS
LEXINGTON, KENTUCKY

Sponsored By
KENTUCKY MEDICAL ASSOCIATION

Co-Sponsored By
University of Kentucky College of Medicine
University of Louisville School of Medicine
Kentucky Hospital Association
Rural Kentucky Medical Scholarship Fund
Kentucky Farm Bureau
Kentucky Chamber of Commerce

Workshops Keep Participants Involved

"Hands-On" workshops were part of the activities at this year's Emergency Medical Care Seminar at the Executive West Motel, Louisville. The more than 400 people attending the Seminar, June 18 and 19, were able to actively participate in workshops teaching tracheal and esophageal intubation techniques, the application of MAST trousers, posterior nasal packing and a basic cardiopulmonary resuscitation course.

Designed as a continuing education program opportunity for paramedics, nurses, physicians and administrators, the seminar featured an outstanding volunteer faculty of Kentucky physicians, an ambulance competition and several exhibits by equipment suppliers. The Kentuckiana Chapter, Emergency Department Nurses Association and the Kentucky EMT Association also participated in the sessions and offered programs geared to the special needs of their respective memberships.

George Ballou, M.D., team physician for the Cincinnati Reds and Bengals, was the Wednesday luncheon guest speaker. His discussion on sports injuries covered highlights of his 27 years as a team physician for professional athletes.

Joe Miller, Executive Assistant for the Bureau of Health Services, was guest speaker during the luncheon on Thursday, stepping in for Grady Stumbo,



Those attending the "hands-on" workshops were able to practice the techniques as instructors gave directions.



An eight-hour CPR Course was sponsored by the Red Cross as part of the Seminar.



"Tracheal and esophageal intubation" was the subject of one "hands-on" workshop.

at Emergency Medical Care Seminar

M.D., Secretary for the Department for Human Resources, who was scheduled to speak but had to cancel at the last minute.

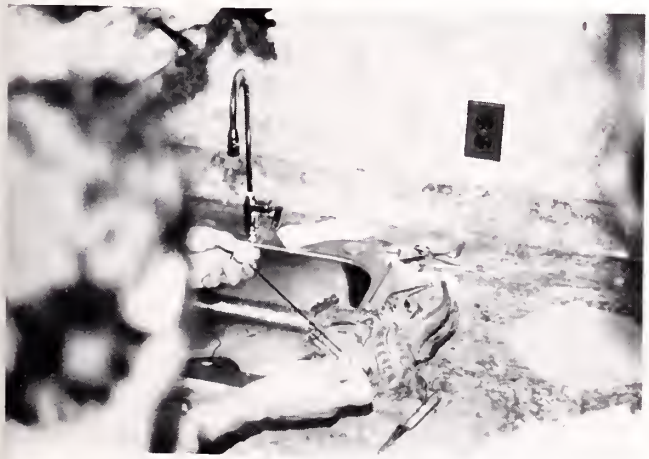
The Emergency Medical Care Seminar was sponsored jointly by the Emergency Medical Care Committee of the Kentucky Medical Association and the Kentucky Department for Human Resources.



Simulated emergency medical situations were set up during the ambulance competition and each group was judged on their ability to handle it.



Exhibitors displayed new electronic equipment during intermissions at the Seminar.



"Posterior Nasal Packing" was another "hands-on" workshop offered during the Emergency Medical Care Seminar.



A volunteer is used to show the correct application of MAST trousers during a "hands-on" workshop.

Members in the News

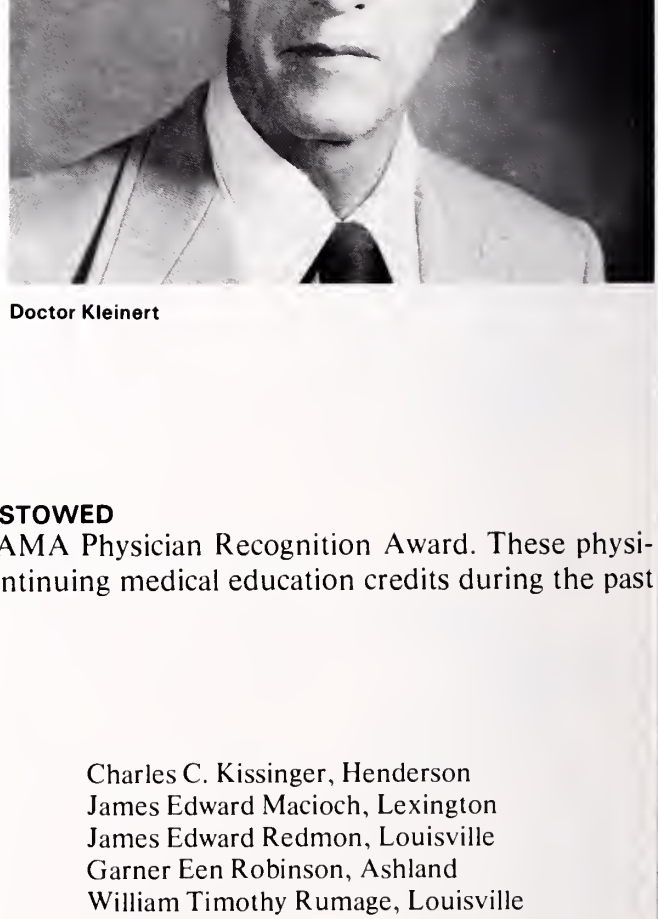
Doctor Kleinert Receives Scientific Achievement Award

Harold E. Kleinert, M.D., Louisville, was presented the Scientific Achievement Award during the 1980 Annual Meeting of the American Medical Association in Chicago.

Doctor Kleinert is internationally known for his work in hand and extremity surgery. He has developed many new microsurgical techniques and procedures as well as designing the necessary surgical equipment.

Doctor Kleinert is Clinical Professor of Surgery at the University of Louisville School of Medicine and the Purdue University School of Medicine.

The Scientific Achievement Award is presented each year at the AMA Annual Meeting to an outstanding physician who has made an important contribution to the field of medicine.



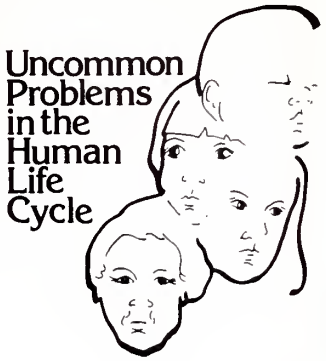
Doctor Kleinert

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

John William Ambach, Shively
Marvin Edwin Bishop, Winchester
Dennis William Enright, Louisville
Will S. Foster, Louisville
Jerry Douglas Fraim, Paintsville
Patrick Paris Galla, Louisville
Allen Evans Grimes, Lexington
Patrick F. Hagihara, Lexington
Russell Aubra Hibbs, Henderson
Gordon Lee Hyde, Lexington
Charles C. Kissinger, Henderson
James Edward Macioch, Lexington
James Edward Redmon, Louisville
Garner Een Robinson, Ashland
William Timothy Rumage, Louisville
James M. Stevenson, Brooksville
Chuchai Sukhaphadhana, Middlesboro
Lloyd Ross Taustine, Louisville
Ronald Dale Weddle, Bardstown
Alfred Bryon Young, Lexington





"Adolescence to Adulthood" is Wednesday's Theme at KMA Annual Meeting

Lawrence M. Solomon, M.D., will speak Wednesday, Sept. 24, on "The Life-Limiting Role of Skin Disease in the Adolescent Patient."

Doctor Solomon will discuss the interaction between four disease states: eczema, psoriasis, acne and factitial dermatitis. His presentation will also include the psychological and physical well-being of the adolescent.

Doctor Solomon is Professor of Dermatology and Head of the Dermatology Department at the University of Illinois.

All activities will be at the Ramada Inn/Bluegrass Convention Center, Louisville. You are urged to make your room reservations at your earliest convenience. The number to call is (502) 491-4830.

KMA Physician Recruitment Fair is Scheduled for October 4

The Kentucky Medical Association, along with the University of Kentucky, University of Louisville, Kentucky Hospital Association, Kentucky Chamber of Commerce and the Department for Human Resources is sponsoring the Second Annual Physician Recruitment Fair.

The one-day program will be held October 4, 1980, at the University of Kentucky campus and will feature an exhibit hall where medical students, residents and physicians may meet with more than 40 communities to discuss practice opportunities.

You and your spouse are cordially invited to attend this program. For more information and registration forms, please call or write the KMA Placement Service, 3532 Ephraim McDowell Drive, Louisville, KY 40205 (502) 459-9790.

PRIMARY CARE FACULTY TEAM SUPERVISOR, UNIVERSITY OF LOUISVILLE, providing primary care outpatient services with integrated specialty services of the Health Sciences Center Ambulatory Care Building and soon to be completed University Hospital. Seeking physician interested in new dynamic university-based interdisciplinary group practice serving as a model for health sciences center students and trainees. Board eligibility in relevant specialty preferred i.e., internal medicine, family practice, pediatrics or ob/gyn. Faculty appointment in the School of Medicine. Excellent salary with generous fringe benefits including TIAA/CREF retirement plan. Interested candidates should submit curriculum vitae and references to: William P. VonderHaar, M.D., Assistant Vice President for Health Affairs, University of Louisville, P.O. Box 35260, Louisville, KY 40292. The University of Louisville is an Affirmative Action/Equal Opportunity Employer.

How's Your Cost Consciousness?

JULY—Consider development of "economic" grand rounds with the presentation of a medical/surgical problem together with the cost incurred.

Physicians should make every attempt to learn the cost of everything they do. Study copies of your patients' hospital bills. Find out how many health care dollars you trigger in a single day of practice by keeping a diary of the estimated cost of every patient care action taken that day.

Compare your office costs with hospital costs before ordering in-patient or out-patient tests.

Six New Loans are Awarded at the RKMSF Annual Meeting

The Rural Kentucky Medical Scholarship Fund, at its Annual Meeting in May, awarded six new loans and 34 renewals. Several weeks after the meeting, an additional $12,000 was obtained that enabled the Fund to grant three additional loans. For the first time in the Fund's history it was unable to grant loans to every qualified applicant.

Currently, the Fund has been incorporated and by next year will assume all of the Fund's responsibilities. The new corporate structure was undertaken by the Board to provide a more structured organization, to protect the officers and staff of the Fund, and to add additional clout to the Fund and its operations.

G. L. Simpson, M.D., who has been a member of the Board since its inception and chairman of the Board for the past nine years, stepped aside as chairman of the Board, but will remain on the Fund until the completion of his term. The newly elected officers for the Fund are as follows: Henry S. Spalding, M.D., President; Carl Cooper, Jr., M.D., Vice President; Robert G. Cox, Secretary; Donald Chatham, M.D., Treasurer.

The Fund would like to continue its policy of loaning to all needy medical students, however, without additional support from grants and contributions, loaning activities will have to be curtailed. All physicians in Kentucky are strongly encouraged to make a tax-exempt contribution to the Fund to help us continue to provide assistance for this most worthwhile project.

ASSOCIATE DEAN FOR CURRICULAR AND STUDENT AFFAIRS—SCHOOL OF MEDICINE: The University of Louisville School of Medicine invites qualified applicants for the position of Associate Dean for Curricular and Student Affairs. The person selected will be responsible for the supervision, development, and monitoring of the School of Medicine's educational programs and for activities related to student affairs. The Associate Dean will be expected to develop knowledgeable understanding of the educational programs and provide advisory input to the faculty, students and Educational Policy Committee of the School of Medicine. He or she is expected to continually evaluate the curriculum, so as to better achieve the stated goals of the School of Medicine's educational program. He or she will be able to consult with medical students providing proper academic advice and direction. Candidates for this position must have a doctoral degree, preferably in medicine or a medically related field. Evidence of successful experience in medical curricular affairs will also be required. Candidates must be eligible for academic appointment. Applications and nominations should be submitted no later than August 1, 1980, and directed to: Ronald A. Key, Office of the Dean, School of Medicine, University of Louisville, Louisville, KY 40292. The University of Louisville is an Equal Opportunity/Affirmative Action Employer.

Report of CME Activities

The Kentucky Medical Association CME committee, under direction of the House of Delegates, is again undertaking the annual collection and computation of the membership's CME activities.

The program resulted from a 1976 House of Delegates action. It is voluntary, but participation is strongly encouraged by the House and Board of Trustees.

The reporting form is located in this issue of the Journal. It will be published periodically throughout the year. Please fill it out and return to the KMA Headquarters office by August 15 in order to be counted in this associational year.

Records are kept for three years and are available to you upon request. If you have recently received the AMA Physician's Recognition Award you need not fill out the form. Attach a copy of your certificate to the reporting form and return.

If you have any questions please contact the KMA office.

Clip and Use

Log of Continuing Medical Education Activities for the Period _____ to _____

Name: _____

Address: _____

_____

_____

Ky. Cert. # _____

Medical Education # _____

CATEGORY 1: CME Activities with Accredited Sponsorship
(At least *60* credits *must* be earned in this category for AMA PRA Award over a three year period).

I CERTIFY THE FOLLOWING TO BE TRUE AND CORRECT FOR THE PERIOD _____ to _____

(MUST BE PRINTED OR TYPED)

Signature: _____

Accredited Sponsor	Location of Activity City, State	Description of Activity	Date of Attendance From To	Credits

Clip and Use

CATEGORIES: 2-6

RETURN TO:
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

CATEGORY 2: CME Activities with Non-accredited Sponsorship
CATEGORY 3: Medical Teaching
CATEGORY 4: Articles, Publications, Books and Exhibits
CATEGORY 5: Non-Supervised Individual CME
CATEGORY 6: Other Meritorious Learning Experience
NOTE: For more information on these categories refer to the AMA PRA Information Handbook

(MUST BE PRINTED OR TYPED)

Cat. #	Sponsor: Institution, or Publication, or Physician, or Self	Location of Activity City, State	Description of Learning Activity (course, paper, journal name, etc.)	Dates of Activity From To	Credit Hours



WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® ℂ

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

*__INDICATIONS:__ Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diezepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which if it occurs usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101

TM

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® ©IV

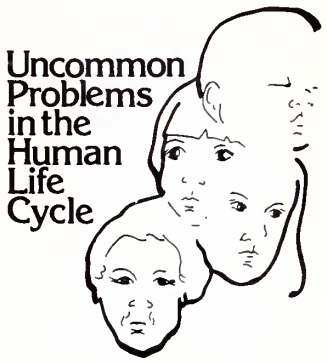
(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Menegement of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physicelly dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, tight-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Ceses of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**)
Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS
The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as local or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

Copyright © 1980, Wyeth Laboratories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa 19101





"Middle Age" is Wednesday Afternoon's Theme at KMA Annual Meeting

T. S. Danowski, M.D., will speak, Sept. 24, on "Management of Diabetes in the Middle Age Patient."

The characteristics and the management of Type I (Insulin-dependent), Type II (Non-insulin dependent) and Chemical Diabetes (Impaired Glucose Tolerance) will be discussed with emphasis on diet, exercise and the use of insulin or sulfonylureas. The importance of reduction of weight in obese persons with Chemical Diabetes and Type II diabetes will be emphasized.

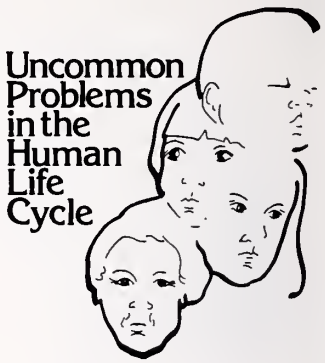
Doctor Danowski is an internist and endocrinologist. He is Director of the Department of Medicine at Shadyside Hospital, Pittsburgh, Pennsylvania and Clinical Professor of Medicine at the University of Pittsburgh.

★
Specialized Service
IN
PROFESSIONAL LIABILITY INSURANCE
is a high mark of distinction

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greena, Representative
Suite 260, Shelbyville Raad Mall Office Center, 400 Sherburn Lane
• Telephane: (Area Cade 502) 895-5501, Mailing Address: P.O. 20065, Lauisville, Kentucky 40220
LEXINGTON OFFICE: Charles E. Faree, Representative
Suite 103B, 152 East Reynolds Raad
Telephane: (Area Cade 606) 272-9124, Mailing Address: P.O. Box 24249, Lexingtan, Kentucky 40524





"The Aging Patient" is Thursday's Theme at the KMA Annual Meeting

Henry M. Clayman, M.D., will speak Thursday morning, Sept. 25. His topic is "What is lens implant surgery and why is it so beneficial to the elderly patient?"

During his presentation, Doctor Clayman will discuss optical correction after cataract surgery and why this procedure is usually necessary. A lens implant is a prosthetic lens inserted within the eye that offers a superior quality of optical correction.

Doctor Clayman is an ophthalmologist practicing in N. Miami Beach, Florida.

CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

FACULTY POSITIONS AVAILABLE
DEPARTMENT OF FAMILY PRACTICE
UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

Rapidly expanding Department of Family Medicine has openings for:

DIRECTOR OF RESIDENCY TRAINING
GERONTOLOGIST/FAMILY PHYSICIAN
TEAM LEADER PHYSICIANS
STAFF FAMILY PRACTITIONERS

Applicants should be board certified or board eligible and have an interest in academic medicine and desire to work in an interdisciplinary residency model.

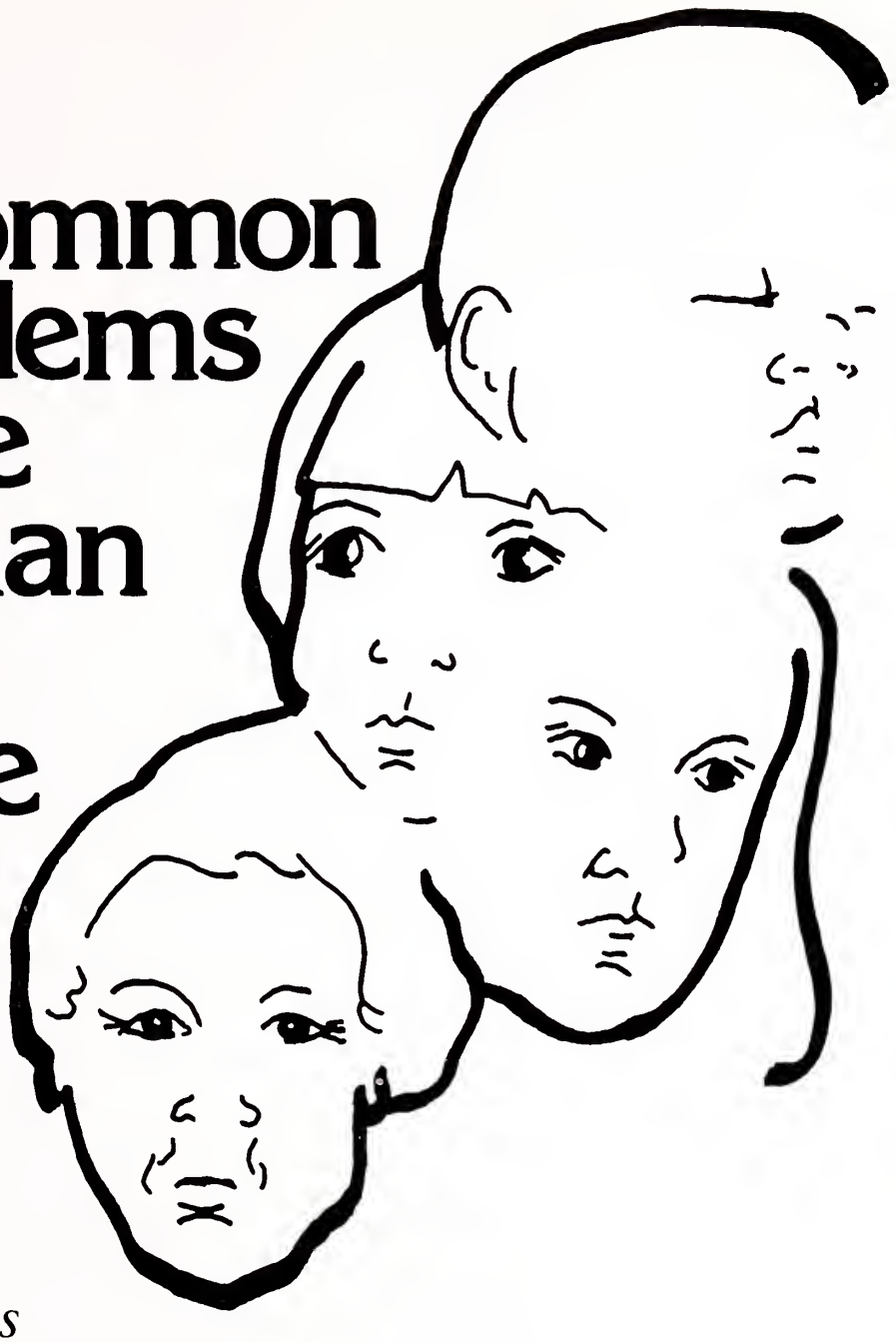
Competitive salary plus opportunity for private practice and scholarly endeavors.

Address inquiries attention:

John C. Wright, M.D., Chairman
Department of Family Medicine
801 Barret Avenue
Louisville, Kentucky 40204

(Equal Opportunity Affirmative Action Employer)

Uncommon Problems in the Human Life Cycle



SPECIAL FEATURES

- Scientific Session Featuring 24 Nationally Recognized Speakers
- Technical & Scientific Exhibits
- 21 Specialty Society Meetings
- Presentation of KMA Awards
- President's Luncheon
- Meetings of House of Delegates
- KEMPAC Seminar

KMA Annual Meeting, Sept. 23-25, 1980, Ramada Inn/Bluegrass Convention Center, Louisville

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR SALE

75 RITTER TABLE—for proctologic and gynecologic examinations; excellent condition (502) 895-5429.

X-RAY EQUIPMENT, x-ray machine, fixed bucky table with Continental controls, accessories including darkroom supplies, 895-2472.

It's smarter to

LEASE

cars, trucks and equipment

NO CASH NEEDED

Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

Brief Summary of Prescribing Information

Indications and Usage: Symptomatic relief of anxiety, tension, agitation, irritability and insomnia associated with anxiety neuroses and transient situational disturbances; anxiety associated with depressive symptoms and as a treatment of symptoms of anxiety if such symptoms are a significant feature of functional or organic disorders, particularly gastrointestinal or cardiovascular

Effectiveness in long-term use, i e , more than 4 months, has not been assessed by systematic clinical studies Reassess periodically usefulness of the drug for the individual patient

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses As with all CNS-acting drugs, warn patients on lorazepam not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants

Physical and Psychological Dependence Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating) Addiction-prone individuals, e g drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months

Precautions: In depression accompanying anxiety, consider possibility for suicide

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation

Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated anxiety, agitation, irritability, tension, insomnia and occasional convulsions

Observe usual precautions with impaired renal or hepatic function

Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component

Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day No effect dose was 1 25mg/kg/day (approximately 6 times the maximum human therapeutic dose of 10mg/day) Effect was reversible only when treatment was withdrawn within 2 months of first observation Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatric patients requires caution and frequent monitoring for symptoms of upper G I disease

Safety and effectiveness in children under 12 years have not been established

ESSENTIAL LABORATORY TESTS Some patients have developed leukopenia, some have had elevations of LDH As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy

CLINICALLY SIGNIFICANT DRUG INTERACTIONS Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS No evidence of carcinogenic potential emerged in rats during an 18-month study No studies regarding mutagenesis have been performed

PREGNANCY Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses Clinical significance of these findings is not known However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug

In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide

NURSING MOTHERS It is not known if oral lorazepam is excreted in human milk like other benzodiazepines As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose In a sample of about 3,500 anxious patients most frequent adverse reaction is sedation (15 9%), followed by dizziness (6 9%), weakness (4 2%) and unsteadiness (3 4%) Less frequent are disorientation, depression, nausea change in appetite headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance various gastrointestinal symptoms and autonomic manifestations Incidence of sedation and unsteadiness increased with age Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety

Overdosage: In management of overdosage with any drug, bear in mind that multiple agents may have been taken Manifestations of overdosage include somnolence, confusion and coma Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring of vital signs and close observation Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U S P Usefulness of dialysis has not been determined

Ativan® IV for (lorazepam) Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

Wyeth Laboratories
Philadelphia, PA 19101

Copyright © 1979, Wyeth Laboratories
Div of AHPC, N Y , N Y All rights reserved

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

Ativan® (lorazepam) **for Anxiety**

THIS FORMER ALL-STATE HALFBACK WILL DIE 20 YEARS BEFORE HIS TIME



Back in college he was always in great shape. But, like too many other Americans, the end of his college career signaled the end of his regular physical activity.

Years of business pressure, poor diet and a sedentary lifestyle have conspired to steal away his good health and cut years from his life expectancy. Now he's a prime candidate for heart disease—the number one cause of death and disability in the U.S.

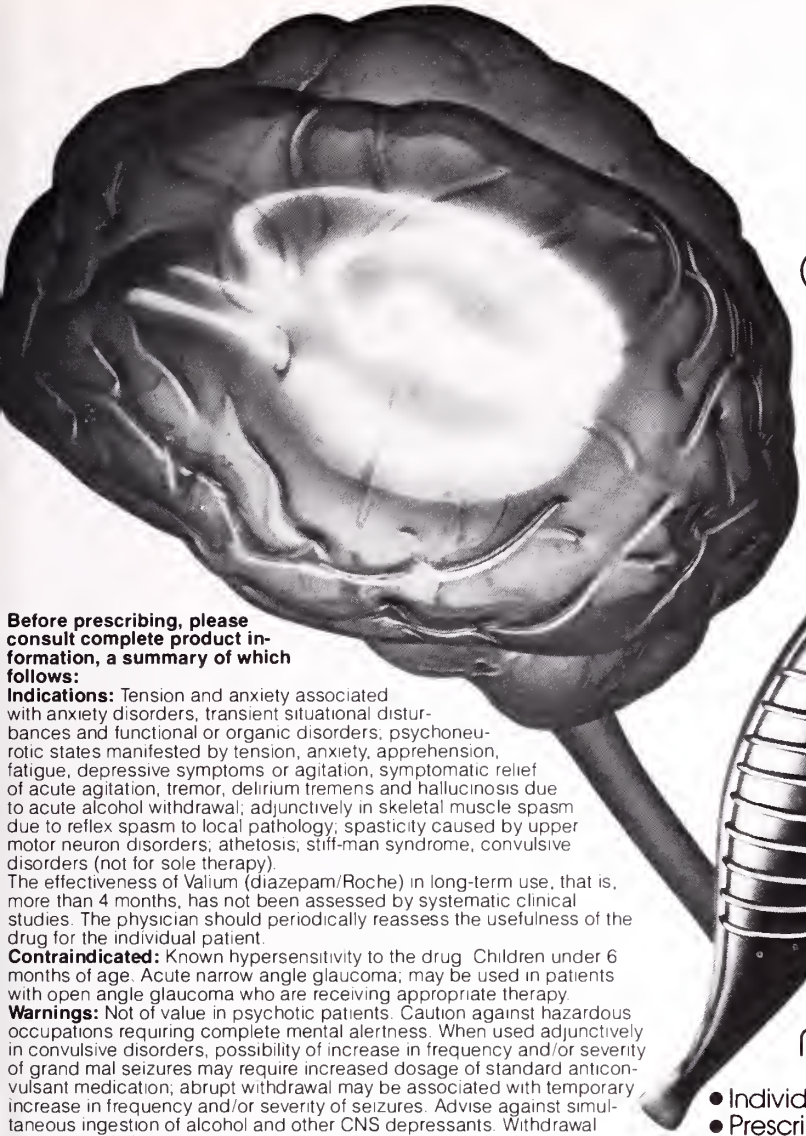
Don't let the same thing happen to you. If you left your active lifestyle back in school, get moving again. Start a moderate program of regular lifetime sports like golf, tennis, biking, jogging, bowling or swimming. Start your new program with a check-up by your physician. It can help you feel better, look better and live better.

Just a little activity and recreation can make a big difference in your whole outlook on life. And the sooner you get moving, the longer you'll be able to move.

KEEP MOVING, AMERICA!

AAHPER

American Alliance for Health, Physical Education and Recreation 1201-16th Street, NW Washington, DC 20036 (202) 833-555



Only Valium® (diazepam/Roche) is indicated in anxiety and tension states and as an adjunct in the relief of skeletal muscle spasm

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

General guidelines for the prescribing and appropriate use of minor tranquilizers

- Individualize dosage for maximal beneficial effect.
- Prescribe the specific quantity needed until the next checkup period, schedule frequent, periodic reexaminations to monitor results of therapy.
- Establish treatment goals and gradually discontinue medication when these have been met.
- Avoid prescribing for individuals who appear dependency-prone or whose histories indicate the potential for misuse of psychoactive substances, including alcohol.
- Caution patients against engaging in hazardous occupations requiring complete mental alertness such as operating machinery or driving.
- Advise patients against the ingestion of alcoholic beverages while undergoing therapy with minor tranquilizers.
- Counsel patients to follow label directions, keep medication out of children's reach, and dispose of unused or old medication.
- Caution patients against giving medication to others.
- Avoid abrupt cessation of extended therapy by tapering dosage before discontinuing medication.

ROCHE®

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Only Valium® (diazepam/Roche)
has these two distinct effects

mind & muscle



-Antianxiety

-Skeletal muscle relaxant

2-mg, 5-mg, 10-mg scored tablets

Valium®(IV)
diazepam/Roche

Indicated in anxiety and tension states and as an adjunct in the relief of skeletal muscle spasm

Please see summary of product information on preceding page.

ROCHE®

The Journal Of The Kentucky Medical Association

August 1980 Volume 78 Number 8

Uncommon Problems in the Human Life Cycle

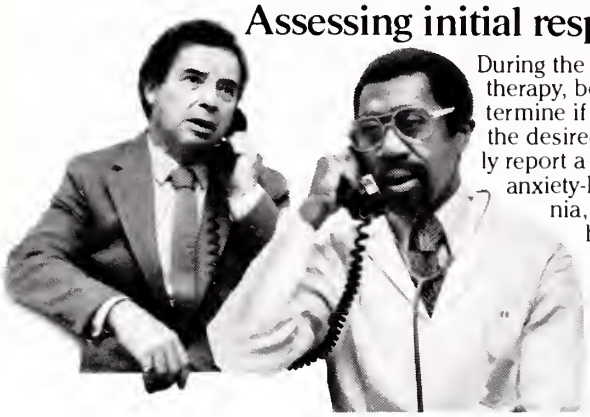


Physicians of Phil.
19 South 22nd St.
Philadelphia, PA 19103

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
SEP 15 1980

Four Scientific Sessions-KMA Annual Meeting, Sept. 23-25, 1980,
Bluegrass Convention Center, Louisville

Monitoring patient response to Valium® (diazepam/Roche)

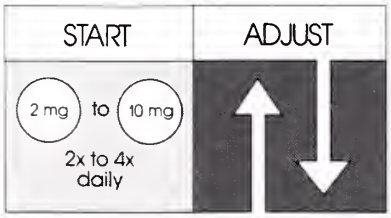


Assessing initial response to therapy

During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments



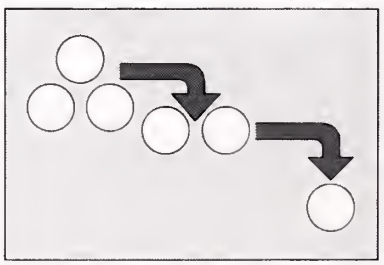
With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily. When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it. Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosage is good medical practice. Although rarely necessary after short-term treatment with Valium, gradual dosage reduction is advisable for patients who have been on extended therapy. This gradual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy at higher dosages taken continuously over long periods of time.

2-mg, 5-mg, 10-mg scored tablets

Valium®(IV)
diazepam/Roche

An Important Adjunct to Your Treatment Program for Excessive Anxiety

ROCHE®

See the following page for a summary of product information.

Valium® (diazepam/Roche) ℞

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.

ROCHE®
Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, New Jersey 07110

PRIMARY CARE FACULTY TEAM SUPERVISOR, UNIVERSITY OF LOUISVILLE, providing primary care outpatient services with integrated specialty services of the Health Sciences Center Ambulatory Care Building and soon to be completed University Hospital. Seeking physician interested in new dynamic university-based interdisciplinary group practice serving as a model for health sciences center students and trainees. Board eligibility in relevant specialty preferred i.e., internal medicine, family practice, pediatrics or ob/gyn. Faculty appointment in the School of Medicine. Excellent salary with generous fringe benefits including TIAA/CREF retirement plan. Interested candidates should submit curriculum vitae and references to: William P. VonderHaar, M.D., Assistant Vice President for Health Affairs, University of Louisville, P.O. Box 35260, Louisville, KY 40292. The University of Louisville is an Affirmative Action/Equal Opportunity Employer.

It's smarter to

LEASE

cars, trucks and equipment

NO CASH NEEDED

Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

Postgraduate Opportunities

SEPTEMBER

3-4 Hypertension, 1980, Hyatt Regency, Louisville
4-6 Gynecologic Surgery, Hyatt Regency, Louisville
8 Griswold Lecture, Health Sciences Center, Louisville
15 1980 John I. Perlstein Lecturer, Health Sciences Center, Louisville
22-25 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

1-2 8th Annual Fall Pediatric Surgery—Pediatrics Symposium, Indianapolis Hilton Hotel
1-4 American Assoc. for Cancer Education, Hyatt Regency, Louisville
10 Critical Care Symposium, Jewish Hospital, Louisville
24-26 Hypnosis in Medicine, Ramada Inn-Bluegrass, Louisville**
27-29 Mid-American College Health Assoc., Hyatt Regency, Louisville
29 Louisville Pediatric Society Lectureship, Health Sciences Center, Louisville
30-31 14th Annual Newborn Symposium, Health Sciences Center, Louisville

NOVEMBER

1-2 KAFP Fall Seminar, Hyatt Regency, Louisville
2-6 Images of Old Age, Smithsonian Exhibit, Health Sciences Center, Louisville**
11-12 Gynecologic Surgery, Endocrinology and Infertility, Executive Inn, Louisville
13 Diabetes in the Elderly, Health Sciences Center, Louisville**
18 Cancer Symposium, Highlands Baptist, Louisville
20 Consequences of Stress, Health Sciences Center, Louisville**

DECEMBER

5-6 Nephrology and Urology Seminar, Hyatt Regency, Louisville**
10-12 Neurology for the Non-Neurologist, Sheraton Plaza Hotel, Chicago, Illinois

**For further inmformation contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161*

★

Specialized Service

IN

PROFESSIONAL LIABILITY INSURANCE

is a high mark of distinction

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greena, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Charles E. Faree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

The Journal Of The Kentucky Medical Association

USPS 280-700

Volume 78 • August 1980

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

Clinical Approach to the Choice of Antimicrobial Therapy, Case #19: Gram-Negative Bacillary Meningitis
Julio C. Melo, M.D., William C. Templeton, M.D. and Martin J. Raff, M.D. 455

Extra Anatomic Grafts: An 11-Year Experience
Gordon L. Hyde, M.D. and Brian McIntyre, M.D. ... 460

Enzyme Immunoassay: An Important Laboratory Test
Lawrence J. Guzzardi, M.D. and Scott R. Hamann, B.S. 464

EDITORIAL

DLS 475

PROFILE

Senator John E. Trevey, M.D. 478

ASSOCIATIONAL NEWS

KMA/AMA Honor Tim Lee Carter, M.D. 482
KMA Annual Washington Visitation and Banquet 482
Doctor Cassady is Nominated President-Elect of KMA 483
CME Committee Encourages Accreditation 486

SPECIAL FEATURE

KMA Annual Meeting Section 489

REGULAR FEATURES

Postgraduate Page 448
President's Page 453
Manuscript Information 465
Maternal Mortality 467
Auxiliary 473
Cost Consciousness 482
Headquarters Activity 486

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscriptions $15
(Members $7.50)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **ASSOCIATE EXECUTIVE EDITOR**
Joseph A. Witherington, Jr.

• **MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

• **Cover illustration by Martha S. Miller**

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 1980

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3905 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

AUGUST BUYERS GUIDE FOR JOURNAL OF KMA

Boehringer Ingelheim Ltd. 470, 471, 472
Classified Column 487
General Leasing Corporation 447
Insurance Corporation of America 474
KEMPAC 500
Kentucky Medical Insurance Corporetion 466
A. P. Lee Agency 476
Eli Lilly & Company 477
Medical Protective Compeny 448
Merrell-Nationel 468, 469
Roche Laboratories 446, 447, 513, 514
South Central Bell 454
University of Louisville 447



WHEN ANXIETY AND TENSION MAGNIFY PAIN IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® ℞

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciencas—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dosa and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazapam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lacteting mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feading patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should ba considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fevar have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have bean reportad where patients receiving meprobamata suffered from aplastic anamia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to hava caused thesa conditions have bean associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of thase returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION. Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

Copyright © 1980, Wyeth Laboratories
All rights reserved.

*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa. 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® C IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbrevieted Summery

INDICATION. For the relief of mild-to-moderate pain

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Menagement of Overdosege**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of ceution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported

Ingestion of 10 grems or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fetal

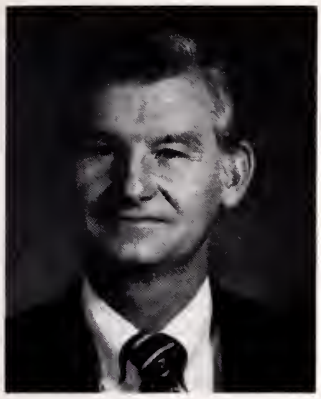
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of essisted or controlled ventilation. The narcotic antagonists, naloxone, nelorphine, and levallorphen, are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexie, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237.2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

Copyright © 1980, Wyeth Laboretories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa. 19101



PRESIDENT'S PAGE

THIS associational year is entering the tenth month, and I have been pleased with the response to the membership and public education program. Naturally, there are areas that should be strengthened to further identify the Kentucky Medical Association as a pro-active professional organization. Among these, our position and suggestions to improve the environment that we all share must be a leading priority. The promotion of a healthy life style to our patients as a furtherance of our program of preventative medicine is mandatory. There are many other such issues to be considered and each of us should contribute. I have learned much recently from my visits with corporate leaders across the state. I will report on this later and expect further KMA activity in this area. We must be the unchallenged leaders in advocating the scientific health issues for which we were trained.

The recent KMA Washington visit emphasized another aspect of the function of organized medicine to which we must respond. Our congressional representatives were most cordial and were anxious to have our positions on political health issues. It is obvious to all that we are strongly challenged by many groups on legislative matters. We owe a debt of gratitude to those physicians among us who devote much of their time in studying legislative health issues and maintaining liaison with our representatives at both the state and national level. This endeavor must also be strengthened by the participation of more informed members. To paraphrase Thomas Paine, "In order to protect the free practice of medicine, we must be willing to undergo the fatigue of supporting it."

Finally, we had the unique pleasure of honoring congressman, Tim Lee Carter, M.D., for his years of exemplary service to this country in the House of Representatives. Doctor Carter has been a true friend of medicine and a strong advocate for quality patient care. His counsel will be missed in Washington, but we welcome him back to Kentucky.

ROBERT S. HOWELL, M.D.
KMA PRESIDENT

Manage your patient time for quality care. Manage your practice for greater efficiency.

A medical practice is communications intensive. Bell – at the forefront of communications knowledge – offers systems and services to help you make more and better use of your doctor-patient time. And increase staff productivity by increasing efficiency in office procedures.



Eliminating manual information handling reduces clerical work so your staff can focus on patient care.

Streamline communications.
Numerous practice management problems are fundamentally related to communications. It takes an average of 75 information exchanges, verbal and on paper, involving doctors, patients, office personnel, hospitals, outside providers, to move each patient from appointment scheduling through payment processing. Bell communications systems can help you manage these exchanges more effectively.



Improve patient flow. And cash flow.
Cut down or cover no shows. Speed collections. Reclaim bad debt write-offs. A Bell Phone-Power Program can teach your staff proven techniques for handling these problems better.

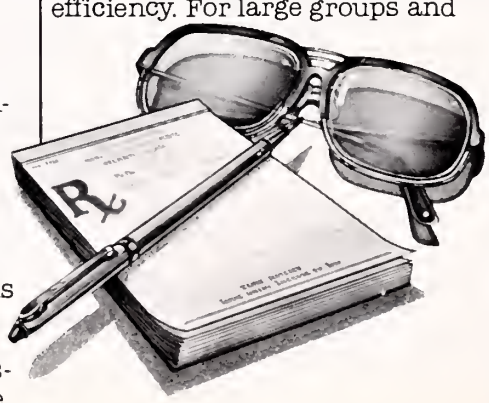
Reduce patient impatience.
Decrease waiting time. Eliminate conflicting appointments. Level out peaks and valleys in patient load. Bell data terminals that access automated scheduling systems can help avoid clerical errors and needless disruption of the doctor's schedule.

Improve staff coordination.
Eliminate time-consuming footwork. Bell communications systems can provide instant inter-office consultation, personnel tracking, patient location.

Expedite billing and claims processing.
Recapture lost-to-error billings. Reduce turn-around time on third party reimbursements. Relieve the paperwork burden. Bell data terminals such as the Dataspeed® 40 will access a computer or service bureau to provide quick and accurate recording and retrieval of billing and claims information.

Earn CME credit.
Bell offers medical-oriented seminars to show you how the latest communications technology and techniques can improve your practice management procedures. In one short, enlightening forum, you'll gain valuable information to help you improve practice profitability. And you'll earn Category 2 CME credit.

Gain from advanced technology.
Whether your practice is solo or group, a Bell communications system with features for the future can help you manage better today. The ComKey® family of systems offers intercoms with one-button signaling and hands-free answering, multi-line conferencing for discussions with several colleagues at once, and other features for speed and efficiency. For large groups and clinics, a sophisticated Horizon® system or a totally electronic Dimension® PBX offers the flexibility large practices demand for unique communications needs.



Call on the specialists.
South Central Bell has account executives trained to solve the unique communications problems of medical practices, solo and group. Put our knowledge to work for you. Call toll free, **1-800-633-6272,** Ext. 100 (in Alabama, 1-800-272-8484). Or complete and mail the coupon below. **South Central Bell.**



Advanced ComKey® systems with hands-free intercom keep receptionists, nurses, technicians within instant reach.

The knowledge business

South Central Bell
Suite 100, P.O. Box 336
Birmingham, Alabama 35201

☐ **Yes,** we want to improve our practice management procedures. Tell me more about:
- ☐ Phone-Power for medical practices
- ☐ Billing/claims processing
- ☐ Automated scheduling
- ☐ ComKey® systems ☐ Data terminals
- ☐ Electronic communications systems for groups/clinics
- ☐ Bell's medical-oriented seminars that earn CME credit.

Name _____
Practice Name _____
☐ Solo ☐ Group/No. Physicians _____
Address _____
City/State/Zip _____
Telephone ( ) _____

Call toll free: 1-800-633-6272
Ask for Extension 100.
(In Alabama, dial 1-800-272-8484)

The Journal Of The Kentucky Medical Association

August 1980 Volume 78 Number 8

Clinical Approach to the Choice of Antimicrobial Therapy, Case #19: Gram-Negative Bacillary Meningitis

JULIO C. MELO, M.D., WILLIAM C. TEMPLETON, M.D. and MARTIN J. RAFF, M.D.

"This is the nineteenth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the diagnosis of infectious diseases and the use of antibiotics. A case history is presented, followed by multiple choice questions relevant to management of the patient described. The authors' choices of answers and explanations of how they assessed these cases and chose therapeutic regimens are provided."

A 50-year old male is admitted to hospital following an automobile accident. On physical examination, the patient is poorly responsive. Blood pressure is 100/60 mm Hg, pulse 56/min, respirations 24/min and temperature 96°F. His right pupil is fixed and dilated. There is no evidence of naso- or otorrachia. There is soft tissue edema over the left temporoparietal region, an endotracheal tube is in place and his neck is supple. Auscultation reveals diffuse rhonchi through all lung fields. There is a regular heart rate without murmurs, and the abdomen is soft and non-tender without organomegaly. There are no signs of trauma in his extremities although he has a left hemiparesis.

A CBC reveals a hemoglobin of 13 g/dl, hematocrit 39.5%, WBC count 9700/mm,^{3} with 70% neutrophils, 25% lymphocytes and 5% monocytes. Chest and skull x-rays are normal. The CAT scan of the head reveals an extradural hematomma and he undergoes surgical drainage of this lesion with marked improvement in his sensorium.

On the seventh hospital day the patient develops temperature of 104°F, and on physical examination is noted to have otorrachia and nuchal rigidity. His state of consciousness has again deteri-

From the Section of Infectious Diseases, Department of Medicine and the Department of Microbiology and Immunology, the University of Louisville School of Medicine, Louisville, KY. 40292.

orated. Lumbar puncture reveals cloudy cerebrospinal fluid (CSF), with a total WBC count of 910/mm^3 with 85% neutrophils and 15% mononuclear cells. Glucose is 28 mg/dl (blood glucose 140 mg/dl) and protein 97 mg/dl. Gram stain reveals gram-negative bacilli.

The gram-negative organism most likely to be causing this patient's meningitis is:

A. *Hemophilus influenzae.*
B. *Neisseria meningitidis.*
C. *Escherichia coli.*
D. *Pseudomonas aeruginosa.*
E. *Proteus mirabilis.*

Answer: D. *Pseudomonas aeruginosa.*

This patient has gram-negative bacillary meningitis as suggested by the clinical history, symptoms and signs, and analysis and gram stain of the CSF. Although gram-negative bacillary meningitis is a rare disease in the adult, the proportion of cases of central nervous system (CNS) infection due to these organisms has increased considerably over the last 20 years, concomitant with the rising incidence of gram-negative hospital-acquired infections. Approximately 50 to 70% of cases of gram-negative bacillary meningitis in adults have occurred following neurosurgery. In addition, 60 to 70% of post-neurosurgical meningitides are due to these organisms.[1] Non-traumatic gram-negative bacillary meningitis in the adult usually occurs as a complication of gram-negative bacteremia in hospitalized patients with alcoholic liver disease, neoplasms, diabetes mellitus and other debilitating or immunosuppresive diseases.[2,3]

Of the organisms listed, *Pseudomonas aeruginosa* is probably the **most** likely in this particular setting although *Klebsiella pneumoniae, E. coli* and *P. mirabilis* have also been known to cause meningitis following neurosurgery. The etiology of this postoperative meningitis is related to the "normal" bacterial flora most commonly found at the site of the defect.

Post-neurosurgical gram-negative bacillary meningtis is usually caused by *P. aeruginosa* and the other enteric bacilli listed above.[4,5] *P. aeruginosa* is also the most common organism causing meningitis following spinal anesthesia.[6]

Post-traumatic or post-surgical CSF otorrhea is also associated with the development of gram-negative bacillary meningitis. *P. aeruginosa is a* common pathogen in this situation since it often colonizes the external ear.[4,5]

Escherichia coli is the most common cause of non-traumatic gram-negative bacillary meningitis both in adults and newborns.[2,7,8]

Chronic CSF rhinorrhea due to a frontal bone defect is followed by meningitis due to pneumococci in the great majority of instances and to *H. influenzae* in about 6% of cases.[9]

Pending results of the blood and CSF cultures, your best choice of antibiotics for the patient described here will therefore be:

A. Cephalothin (Keflin®) and gentamicin (Garamycin®) intravenously.
B. Clindamycin (Cleocin®) and gentamicin intravenously.
C. Chloramphenicol, 1 gram intravenously q 4 h.
D. Intravenous carbenicillin (Geopen®) or ticarcillin (Ticar®) and gentamicin plus intrathecal gentamicin.
E. Intravenous carbenicillin and tobramycin (Nebcin®).

Answer: D. Intravenous combined with intrathecal medication which is chosen to provide coverage against the most likely pathogens as listed above, is the best choice provided. Cephalothin, although effective against some enteric gram-negative bacilli, should not be used to treat CNS infections.[10] Cephalothin is deacetylated in the liver and the deacetyl metabolite, although penetrating into CSF more readily than cephalothin, has very little antimicrobial activity.[11,12] Since *P. aeruginosa* is suspected to be the etiologic agent, cephalothin would not be effective even if it were capable of achieving good CSF levels. Although gentamicin is effective against most gram-negative bacilli including pseudomonas, it should not be used as the sole agent parenterally to treat meningitis, since its penetration into the CSF is not reliable. For treatment of gram-negative bacillary meningitis aminoglycosides must be given by direct injection into the subarachnoid space, concomitant with parenteral administration.[13,14]

It is important to obtain therapeutic levels in the serum, as well as in the CSF, since 70% or more of patients with gram-negative meningitis also have gram-negative bacteremia.[15]

Clindamycin should not be used because it does not penetrate well into the CSF and in addition has **no** activity against aerobic gram-negative enteric organisms.

Chloramphenicol is without question one of the most effective and reliable antibiotics available for the treatment of CNS infections. Chloramphenicol is the drug of choice for meningitis due to ampicillin-resistant *Hemophilus influenzae* and for pneumococcal and meningococcal meningitis in patients allergic to penicillin. It penetrates into the CSF and brain tissue quite well.[16,17] One of the reasons that chloramphenicol is so effective in the treatment of *Streptococcus pneumoniae, Neisseria meningitidis* and *H. influenzae* CNS infections is because it has been shown to be bacteri**cidal** against these organisms at even lower concentrations than ampicillin.[18,19] However, chloramphenicol is only bacterio**static** against enteric gram-negative organisms and often has no activity against *P. aeruginosa*.[19] Since a bactericidal agent is usually necessary to treat bacterial meningitis successfully,[20,21] chloramphenicol is not appropriate in the treatment of meningitis due to gram-negative enteric bacilli.[22] Since the organism suspected here is *P. aeruginosa,* chloramphenicol should not be the initial choice of antibiotic. It should be reemphasized that chloramphenicol has a place in the treatment of patients with gram-negative bacillary meningitis when due to susceptible organisms, as well as in the treatment of other CNS infections. It may also be an excellent initial choice, pending culture results, for the treatment of some patients with CNS infections of unknown etiology. This would depend upon the clinical setting and knowledge of the bacteria likely to be causative agents of meningitis under those particular circumstances. Intravenous carbenicillin and tobramycin without intrathecal administration of the aminoglycoside should not be used for reasons explained above. Aminoglycosides do not produce reliable therapeutic concentrations in the CSF when given intravenously. In addition, tobramycin is not approved by the Food and Drug Administration (FDA) for intrathecal administration. Aminoglycosides prepared for intravenous use contain a small quantity of a preservative which has the capacity to produce a chemical arachnoiditis when used intrathecally. There is a preparation of gentamicin available for intrathecal administration which does not contain such an additive.

The correct answer is therefore carbenicillin or ticarcillin and gentamicin intravenously combined with intrathecal gentamicin.

This therapy is instituted initially and continued since the organism reported 48 hours later to be growing from cultures of the CSF is a strain of *P. aeruginosa* sensitive to carbenicillin, ticarcillin, gentamicin, tobramycin and amikacin. Three days later the patient continues to be febrile to 103°F and his mental status is not improving. A repeat lumbar puncture is performed and reveals cloudy CSF with a WBC count of 850/mm^3 with 50% neutrophils and 50% lymphocytes, sugar of 25 mg/dl and a protein of 90 mg/dl. The gram stain again reveals gram-negative bacilli. The best course of action now would be to:

A. Discontinue gentamicin and begin intravenous as well as intrathecal amikacin (Amikin®).
B. Discontinue carbenicillin and begin cefoxitin (Mefoxin®), 2 grams IV q 4 h.
C. Discontinue intrathecal gentamicin and give the gentamicin intraventricularly via an Ommaya reservoir while continuing intravenous antibiotics.
D. Continue carbenicillin and gentamicin intravenously plus intrathecal gentamicin.
E. Discontinue intrathecal gentamicin and begin polymyxin B intravenously.

Answer: C. Intraventricular gentamicin is necessary. Despite the fact that the organism isolated is sensitive to both carbenicillin and gentamicin, the patient is not improving by either clinical or laboratory parameters. It is highly unlikely that the pseudomonas has become resistant to gentamicin and therefore amikacin given intravenously and intrathecally would not be any more effective than gentamicin. Nonetheless, cultures and sensitivities should be repeated. Amikacin

would probably be the drug of choice in patients with suspected or proven infections due to gram-negative organisms resistant to other aminoglycosides (i.e., gentamicin and tobramycin).[23] The intrathecal dose of amikacin is 20 daily.[24] Cefoxitin has no activity against *P. aeruginosa* and therefore it should not be used in this patient. However, cefoxitin may have a place in the treatment of selected patients with CNS infections when more data on its CNS penetrance becomes available.[25,26] It has not yet been approved by the FDA for this purpose.

Polymyxin B was one of the first antibiotics used in the treatment of gram-negative meningitis.[27] This antibiotic is now used less frequently since its replacement by safer and more effective aminoglycosides. It does not penetrate well into the CSF and therefore if it is going to be used at all to treat CNS infections, it must be given intrathecally or intraventricularly.[27]

The most likely reason this patient is not responding to therapy for his gram-negative meningitis is the fact that he may have ventriculitis.[14] The cerebral ventricles are infected in 70% or more of cases of gram-negative meningitis.[14] There is data that suggest that daily intrathecal injection of gentamicin in addition to its systemic administration provides therapeutic levels of the drug in the lumbar space, but concentrations of the drug may not reach therapeutic levels in cisternal and ventricular CSF with this regimen.[13] On the other hand, the same dose of the aminoglycoside injected directly into a lateral ventricle via an Ommaya or Rickham reservoir yields therapeutic concentrations of aminoglycosides in the ventricular and lumbar subarachnoid space CSF.[14] The intraventricular dose of aminoglycoside is essentially the same as the intrathecal dose.[14] There is no universal agreement regarding the clinical indications for intraventricular aminoglycoside therapy. As suggested by several investigators[14,16] the intraventricular route should be reserved for patients with gram-negative bacillary meningitis who:

1. are in coma,
2. are not in state of coma but in whom no clinical or microbiologic improvement is seen after 2-3 days of intrathecal as well as systemic therapy (similar to the patient described here), and
3. have relapsed after initial control of infection by intrathecal and systemic therapy.

It is important to realize that an inadequate response to therapy in a patient with gram-negative bacillary meningitis may be due to factors other than inadequate ventricular and lumbar concentrations of the antibiotic. Parameningeal infections, purulent subdural collections, brain abscesses, osteomyelitis of cranial bone flaps, resistant organisms, superinfection, and other factors must be sought and excluded by physical examinations, x-rays, and radionuclide and CAT scans. Some patients may require surgical reexploration to determine the cause of persistent or relapsing meningitis. When present surgical drainage of purulent collections is required for a successful outcome, which can seldom be achieved solely with antimicrobial therapy.

References 1. Mangi RJ, Quintiliani R, and Andriole VT: Gram-negative bacillary meningitis. *Amer J Med* 59:829-836, 1975. 2. Crane LM and Lerner M: Nontraumatic gram-negative bacillary meningitis in the Detroit Medical Center, 1964-1974 (with special mention of cases due to *Escherichia coli*). *Medicine* 57:197-209, 1978. 3. Massanari RM: Purulent meningitis in the elderly: When to suspect an unusual pathogen. *Geriatrics* 32:55-59, 1977. 4. Wise BL, Mathis JL and Jawetz E: Infections of the central nervous system due to Pseudomonas aeruginosa. *J Neurosurg* 31:432-434, 1969. 5. Buckwold FJ, Hand R and Hansebout RR: Hospital-acquired bacterial meningitis in neurosurgical patients. *J Neurosurg* 46:494-500, 1977. 6. Corbett JJ, Rosenstein BJ: Pseudomonas meningitis related to spinal anesthesia. Report of three cases with a common source of infection. *Neurology* 21:946-950, 1971. 7. Haggerty RJ and Ziai M: Acute bacterial meningitis. *Adv Pediatr* 13:129-181, 1964. 8. McCracken GH, Jr, Sarr LD, Glode NP, et al: Relation between *Escherichia coli* K1 capsular polysaccharide antigen and clinical outcome in neonatal meningitis. *Lancet* 1:246-250, 1974. 9. Hand WL, and Sanford JP: Posttraumatic bacterial meningitis. *Ann Intern Med* 72:869-874, 1970. 10. Mangi RJ, Kundargi RS, Quintiliani R, et al: Development of meningitis during cephalothin therapy. *Ann Intern Med* 78:347-351, 1973. 11. Fisher LS, Chow AW, Yoshikawa TT, et al: Cephalothin and cephaloridine therapy for bacterial meningitis. An evaluation. *Ann Intern Med* 82:689-693, 1975. 12. Nolan CM and Ulmer CW: A study of cephalothin and desacetyl cephalothin in cerebrospinal fluid in therapy for experimental pneumococcal meningitis. *J Infect Dis* 141:326-330, 1980. 13. Rahal JJ, Jr: Combined intrathecal and intramuscular gentamicin for gram-negative meningitis. Pharmacologic study of 21 patients. *N Engl J Med* 290:1394-1398, 1974. 14. Kaiser AB and McGee ZA: Aminoglycoside therapy for gram-negative bacillary meningitis. *N Engl J Med* 293:1215-1220, 1975. 15. McCracken GH, Jr and Mize SG: A controlled study of intrathecal antibiotic therapy in gram-negative enteric meningitis of infancy. *J Pediatr* 89:66-72, 1976. 16. Rahal JJ, Jr: Diagnosis and management of meningitis due to gram-negative bacilli in adults. *Curr Clin Topics in Infec Dis* 1:68-84, 1980. 17. Rahal JJ, Jr: Treatment of gram-negative bacillary meningitis in adults. *Ann Intern Med* 77:295-302, 1972. 18. Feldman WE: Effect of ampicillin and chloramphenicol against *Hemophilus influenzae*. *Pediatrics* 61:406-409, 1978. 19. Rahal JJ, Jr, and Simberkoff MS: Bactericidal and bacteriostatic action of chloramphenicol against meningeal pathogens. *Antimicrob Ag Chemother* 16:13-18, 1979. 20. Feldman WE: Relation of concentration of bacteria and bacterial antigen in cerebrospinal fluid to prognosis in patients with bacterial meningitis. *N Engl J Med* 296:433-435, 1978. 21. Petersdorf FG,

Swainer DM and Garcia M: Studies on the pathogenesis of meningitis. III. Relationship of phagocytosis to the fall in cerebrospinal fluid sugar in experimental pneumococcal meningitis. *J Lab Clin Med* 61:745-754, 1963. 22. McGee ZA, Kaiser AB, Rubens C, et al: Emergence of chloramphenicol resistance during chloramphenicol therapy of gram-negative bacillary meningitis. Abstract no. 14, 17th Intersci Conf Antimicrob Ag Chemother, New York, Oct. 12-14, 1977. 23. Hewitt WL and Young LS: Symposium perspective. *Amer J Med* 62:361-368, 1977. 24. Block CS, Cassel R and Koornhof HJ: Klebsiella meningitis treated with intrathecal amikacin. *Lancet* 2:1371-1372, 1977. 25. Liu C and Dworzack DL: Penetration of cefoxitin into human cerebrospinal fluids: Comparison with cefamandole, ampicillin, and penicillin. *Rev Infect Dis* 1:127-131, 1979. 26. Nair SR,Cherubin CE and Weinsteil M: Penetration of cefoxitin into cerebrospinal fluid and treatment of meningitis caused by gram-negative bacteria. *Rev Infect Dis* 1:134-143, 1979. 27. Quintilliani R and Lentnek A: Polymyxin B in the treatment of *Klebsiella pneumoniae* meningoventriculitis. Intraventricular and intrathecal administration. *Amer J Dis Child* 121:239-242, 1971.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

Extra Anatomic Grafts: An 11-Year Experience

GORDON L. HYDE, M.D. and BRIAN McINTYRE, M.D.

The results of extra-anatomic grafting for vascular disease in 45 patients are presented. Axillary-femoral grafts placed in 26 patients resulted in six peri-operative deaths (four related to ongoing sepsis) with 90% of those surviving early post-operative period having patent grafts at an average follow up of 48 months. Of 15 femoral-femoral grafts placed, 86% remained patent at 62 months average follow up. Five axillary-axillary bypass grafts for either steal or arm ischemia all being patent at an average follow up of 60 months.

AORTOBIFEMORAL bypass grafting is considered the standard surgical procedure for the management of patients with aortoiliac occlusive disease. Unfortunately, in some patients the presence of concurrent disease or sepsis from a previous intra-abdominal procedure either contraindicates an aortobifemoral bypass or makes this procedure unduly hazardous. Blaisdell introduced the concept of extra-anatomic bypass grafts in 1963 specifically to deal with the septic abdominal complications of previous graft procedures.[1] Many subsequent reports have confirmed the value of extra-anatomic bypass techniques in both the septic patient and the high risk patient with concurrent disease.[2,3,4,5,6]

This is a report of the effectiveness and long-term results of extra-anatomic bypass grafts in high risk and septic patients over an 11-year period.

Presented to Kentucky Chapter American College of Surgeons, Lexington, KY., March 1978.

Materials and Methods

The records of 45 consecutive patients requiring extra-anatomic grafts for the management of occlusive peripheral vascular disease from January 1967 through January 1978 were reviewed. All patients were followed to expiration or to the present with a followup ranging from two months to 120 months. The primary indication for operation was threatened or impending loss of extremities for the 26 patients in the axillary-femoral bypass group and the 14 patients in the femoral-femoral group: the five patients in the subclavian group had life-threatening sepsis, subclavian steal syndrome, or threatened loss of the arm.

The 26 patients who had axillary-femoral grafts ranged in age from 57 to 91 years (average 79). Of the 16 men and 10 women, 16 had severe cardiopulmonary disease; five were septic; and two had had previous cerebrovascular accidents. Two other patients had severe metabolic problems and one patient had pelvic cancer.

In 14 patients undergoing femoral-femoral grafts, severe medical risk factors were present in five, unilateral disease in four, and an occluded limb of an aortofemoral graft in five. These patients ranged in age from 41 to 91 years (average 67 years), with 11 men and four women in this group.

Of five patients who had subclavian revascularization, subclavian steal syndrome was present in four, and an ischemic hand prompted operation in one patient. These patients ranged in age from 48 to 72 years (average of 63 years). Severe cardiac disease was present in one patient.

Technique

An extra-anatomic bypass graft is essentially the placement of a bypass graft (either prosthetic or autogenous vein) along natural collateral vascular pathways. These operations are devised primarily to save the extremity, but also provide

excellent functional revascularization without subjecting the patient to a major intra-abdominal operation. The course of the graft is modified according to the individual circumstances required to circumvent the pathologic process with the adequacy of the donor and recipent vessels being the limiting factor.

For an example, an axillary femoral bypass may be indicated in a patient with impending gangrene of a lower extremity who also has significant cardiopulmonary disease. Light general anesthesia or, many times, local anesthesia can be used. Following a standard anesthetic prep, the common femoral artery is exposed in the groin with the superficial femoral and profunda femoris arteries. Endarterectomy is frequently performed, with a profundoplasty being carried out, if indicated. The donor artery is exposed in the axilla by transecting the pectoralis minor at its insertion on the coracoid process to expose the axillary artery. This allows good exposure of the first portion of the axillary artery so that movement does not kink the artery, thus enhancing the chance of thrombosis. It is important to choose the donor artery on the affected side, unless the patient habitually sleeps on that side, in which case, the artery on the opposite side should be used. The graft is sutured to the donor artery, and a tunneling device is passed subcutaneously to the groin. It is important to pass the graft in the mid-axillary line to prevent possible kinking when the patient bends forward. The graft is passed anterior to the anterior-superior iliac spine and is sutured to the side of the common femoral or profunda femoris artery. (Figure 1)

Similar considerations guide construction of an axillary-axillary bypass graft to deal with proximal subclavian occlusion. Other extra-anatomic bypass procedures are devised to fit the specific case.

The graft material used has varied with the evolution of vascular surgery. Vein grafts are preferred in the presence of sepsis. Knitted Dacron grafts are the most commonly used prosthetic materials. Recently, woven grafts or expanded Polytetraflourethylene have been successfully employed.

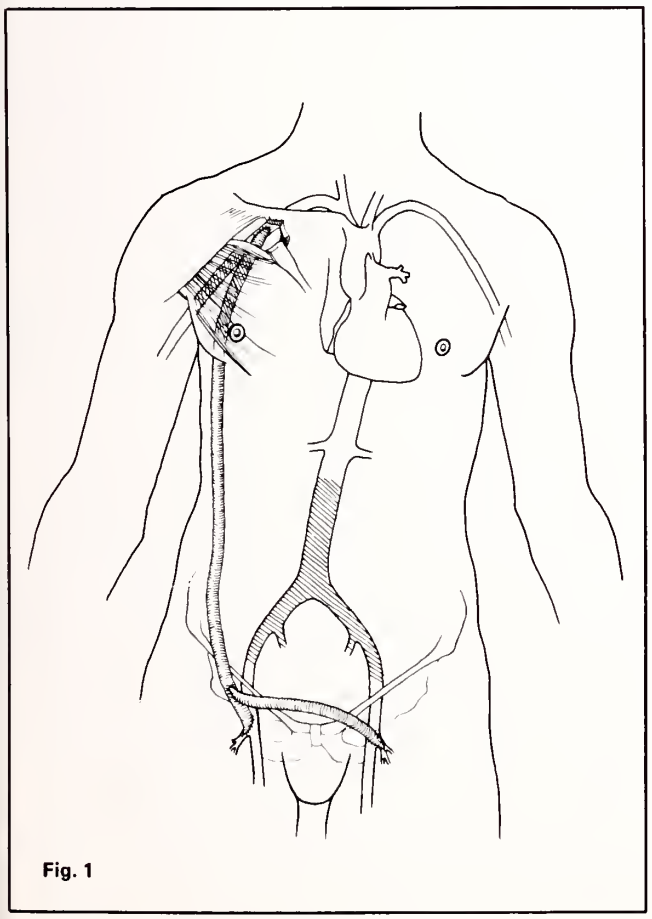


Fig. 1

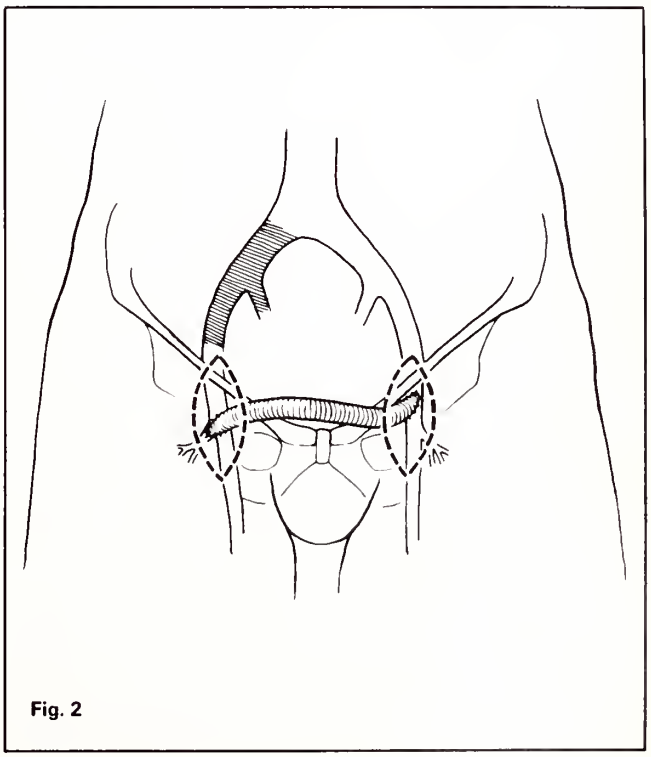


Fig. 2

Results

Axillary-Femoral Grafts

Axillary-femoral grafts were constructed 33 times in 26 patients. Serious early complications appeared in nine patients with axillary-femoral grafts. There were six perioperative deaths (from six hours to five weeks), and four of these were related to sepsis. One patient died with bleeding esophageal varices, and one with severe cardiac disease.

One patient bled from the axillary-graft anastomosis early in the series and required reanastomosis. In this patient, the anastomosis had been placed in the third portion of the axillary artery, and disruption occurred as the patient reached for a bed pan. Two patients had early thrombosis of the graft, and one patient required thrombectomy four weeks postoperatively. This patient's graft remained open at 96 months when he suffered a myocardial infarction and died. One patient underwent a successful thrombectomy two weeks following graft placement, and the graft has remained patent 18 months postoperatively.

Late complications of axillary-femoral grafts included thrombosis in one patient who subsequently had thrombectomy and angioplasty six months postoperatively. His graft remains patent. Another patient had thrombosis at nine months. Thrombectomy was unsuccessful in this case, and amputation was required. This patient died several months later of an unrelated cause.

Long term patency for those who survived the perioperative period varied from two to 96 months, with an average of 48 months. Eighteen of 20 patients (90 percent) who survived the early postoperative period have patent axillary-femoral grafts.

Femoral-Femoral Grafts

Fifteen femoral-femoral grafts were performed. (Figure 2) Major complications occurred in two patients; one had thrombosis of the graft secondary to outflow disease which resulted in amputation; and the other died from myocardial infarction three days postoperatively.

There were no late failures during the period of follow up ranging from four to 120 months, with an average of 62 months. Thirteen of the 15 grafts (86%) remained patent, and all of these had been patent one week postoperatively.

Subclavian Bypass

Five subclavian bypass grafts were constructed. There were no early or late complications identified. The results of a bypass in all cases is considered to be excellent; and all patients are living 11 to 84 months following operation with an average of 60 months follow up.

Discussion

Extra-anatomic bypass grafts provide a very effective alternative in the management of limb ischemia in patients with severe concurrent illness or sepsis which prohibit anatomic reconstruction. Extra-anatomic bypass is also the procedure of choice in proximal subclavian artery occlusion.

The axillary-femoral bypass graft appears to be the most effective alternative in the surgical management of a patient with severe ischemia due to aortoiliac occlusive disease and septic complications of previous grafts. Early failures of axillary-femoral grafts are primarily related to underlying disease which leads to death, or to technical factors. Technical errors may be corrected by thrombectomy and revision with salvage in a high proportion of patients. Late failures are generally related to progression of distal disease, and frequently these patients can be salvaged by thrombectomy and maneuvers to increase outflow.

Technical problems with axillary femoral bypass grafts are primarily related to inflow and outflow as usually seen in vascular procedures. Inflow is assessed prior to axillary-femoral grafting by brachial pressure determination; occasionally angiography may be required. Tension must be avoided at the axillary anastomosis. An 8-10 mm graft is generally used, and it should be passed in such a way to avoid crossing over bony prominences when establishing the subcutaneous tunnel.

In establishing good outflow, it is important that the anastomosis distally lie over the profunda femoris. Profundoplasy, if indicated, should be

performed. Savage in 1966[2] suggested that adding a cross-femoral graft to a unilateral axillary-femoral graft would result in increase flow rate in the axillary limb and might improve patency. This has been supported by others, most recently by Johnson and his group.[3]

The overall results of axillary-femoral bypass grafting appears to be satisfactory in terms of limb salvage. The long term survival of these patients emphasizes the basic pathologic process. There were eight late deaths in this series (30.7%) occurring from 18-96 months postoperatively and only 12 of the 26 (45%) undergoing axillary-femoral grafts were alive five years following their original procedure.

Vetto[7] first reported cross-femoral femoral grafting for unilateral aortoiliac femoral occlusive disease in high risk patients in 1962. He and others observed such safety and success with this procedure that they have come to recommend it as the procedure of choice in the management of unilateral occlusive disease.[4,6] In this series, the femoral-femoral group limb salvage rate was high with only one early death (graft patent) and one late death. Thirteen of the 15 patients (86%) are living. Early patency is explained in this group by the high flow rate characteristic of the femoral-femoral graft. Indeed, this may slow the progression of arteriosclerosis in the donor iliac limb. Late failure is commonly secondary to distal disease progression, but has not been seen in the patients in this series.

Recent reports by Eugene et al[8] concluded that extra-anatomic subcutaneous grafts do provide an adequate blood supply to the extremities, but do not remain patent as long as more conventional aortofemoral or other anatomic grafts. Thrombectomy under anesthesia can open acutely occluded grafts, and long term patency may be obtained. It is recommended that subcutaneous grafts be performed only when intra-abdominal procedures are contraindicated, or life expectancy is limited. However, Johnson et al found that axillary-femoral grafts, although performed in an older population and performed more frequently in limb salvage, had a lower operative mortality than conventional aortofemoral bypass grafts and a similar patency rate in five year survivors. In their judgement, axillary-femoral bypass grafts frequently require remedial operations, but could be expected to maintain long term patency. These optimistic results are reflected in the results in this series.

Summary

It appears from our experience over an 11-year period that extra-anatomic bypass grafts have achieved a definite place in the armamentarium of vascular surgeons and offer significant palliation in patients with severe disease. Axillary-femoral grafting should be considered in patients with sepsis of an intra-abdominal graft and in patients with extreme risk factors or acute thrombosis of a previously placed graft. In these situations, it can provide long-term palliation.

Patient with femoral-femoral bypass have been provided good palliation over extended periods of time. It should be considered among the procedures of choice when unilateral iliac occlusion is present. Results of subclavian bypass have been demonstrated to be highly successful.

References 1. Blaisdell FW, and Hall AD: Axillary-femoral artery bypass for lower extremity ischemia. *Surgery* 54:563, 1963. 2. Savage LR, and Wood SJ: Unilateral axillary bilateral femoral bifurcation graft: A procedure for the poor risk patient with aortoiliac occlusive disease. *Surgery* 60:573, 1966. 3. Johnson WC, et al: Is Axillo-bilaterial femoral graft an effective substitute for aortic-bilateral iliac/femoral graft? An analysis ten years experience. *Annals of Surgery* 186:123, 1977. 4. Parsonnet V, et al: Femoro-femoral and axillo-femoral grafting: Compromise or preference. *Surgery* 67:26, 1976. 5. Mannick J, et al: The late results of axillofemoral grafts. *Surgery* 68:1038, 1970. 6. Sethi G, et al: Femoro-femoral bypass graft: Choice or compromise? *American Surgeon* 41:61, 1975. 7. Vetto RM: The treatment of unilateral iliac artery obstruction with a transabdominal, subcutaneous, femoro-femoral graft. *Surgery* 52:342, 1962. 8. Eugene J, et al: Fifteen years experience with subcutaneous bypass grafts for lower extremity ischemia. *Annals of Surgery* 186:177, 1977.

Enzyme Immunoassay: An Important Laboratory Test

LAWRENCE J. GUZZARDI, M.D. and SCOTT R. HAMANN, B.S.

The enzyme immunoassay offers physicians new opportunities for rapidly and accurately diagnosing many drug problems. Its use is becoming more widespread and it may soon be available in most large and medium sized hospitals. Practitioners should become familiar with this important laboratory aid.

In many routine and emergency situations, a rapid and reliable measurement of drug levels would be of inestimable benefit in rendering rational rather than empiric patient care. Up to now, however, drug monitoring has been a cumbersome procedure that has required the use of a trained laboratory technician and time-consuming tests such as high performance liquid chromatography and gas chromatography. In most hospitals, including even the largest, drug monitoring has either not been available at all or only on a severely limited schedule that minimized its value to the practicing physician. However, a recent advance in laboratory techniques, the enzyme immunoassay, is now available. This technique can be easily performed by virtually any laboratory technician and will allow the detection and quantification of most major drugs within minutes.

Most physicians will use the enzyme immunoassay in one of three ways:

1. Routine drug monitoring.
2. Confirmation of illicit drug use.
3. Quantification of drugs present in accidental or intentional overdose.

The enzyme immunoassay will allow the rapid determination of blood levels of theophylline, lidocaine and phenytoin and allow physicians to make accurate estimates of a patient's compliance with therapy and to measure the patient's individual response to standard dosage.

Even drugs, such as the benzodiazopines, tricyclic antidepressants and digoxin can be accurately quantitated in minutes despite their low concentration and difficult conventional analytic techniques.

Virtually all drugs of abuse, including PCP and opiates, can be determined with a reasonably accurate semi-quantitive estimate in minutes. The methodology even exists for detecting tetrahydrocannabinal, the active ingredient of marijuana, although this is not yet commercially available.

The basis of the enzyme immunoassay is an antigen-antibody reaction between a drug and the antibody to the drug. A brilliant innovation, and the key to the system, is the linking of this antibody with the enzyme, Glucose-6-phosphate dehydrogenase (G6PD). When linked antibody combines with the drug in question, G6PD activity increases resulting in increased conversion of NAD to NADH. The amount of NADH produced is measured spectrophotometrically.[1,2,3]

A table top area of five feet wide and two feet deep provides ample working space for the basic system. Instrumentation is marketed by several companies. The laboratory reagents are available only from the Syva Company, which is a subsidiary of the Syntex Corporation. The estimated cost of the complete unit is about $9,000.00 and the cost of reagents used in each test is $1.80.

Complete Explanation of Enzyme Immunoassay Technique

The enzyme immunoassay technique is a nonradioactive immunoassay technique which employs no hazardous or unstable chemicals, uses a simple and inexpensive readout instrument, and

From the University of Kentucky Medical Center, Lexington, KY.

requires no separation of compounds during the assay procedure. This homogeneous enzyme immunoassay technique utilizes an enzyme labeled drug. The enzyme label used is glucose-6-phosphate dehyrogenase (G6PD). In the performance of the assay, serum or plasma is mixed with a reagent which contains antibodies to a particular chemical substance of drug and also contains the substances for the enzyme reaction. A second reagent is then added which contains a drug labeled with G6PD. The free drug in the sample competes with the enzyme-labelled drug for the binding sites on the antibody. The presence of free drug allows the enzyme-labelled drug to be freed so that the enzyme moiety can react with the substrate. The residual enzyme activity is directly related to the concentration of the drug present in the serum or plasma. The enzymatic reaction is as follows:

$$\text{Glucose-6-P} + \text{NAD} \longrightarrow 6 \text{ phosphogluconate} + \text{NADH}$$

The NADH produced is measured spectrophotometrically at 340nm.

* *The material on this page is copyrighted by Syva Company*

References 1. Bastiani et al: Homogeneous Immunochemical Drug Assays; *Amer J Med Tech*, Vol. 39, No. 6, June, 1973. 2. Rubenstein, Schneider, and Ullman: *"Homogeneous" Enzyme Immunoassay: A New Immunochemical Technique;* Biochemical and Biophysical Research Communications, Vol. 47, No. 4, 1972. 3. Rubenstein KE: Homogeneous Enzyme Immunoassay Today; *Scan J Immunol* 8:(57-62), 1978. 4. Boeckx, Frith, and Simons: *Comparison of a High Performance Liquid Chromatographic and an Enzyme Immunoassay Technique for Quantitation of Theophylline in Serum;* Therapeutic Drug Monitoring 1:(65-73), 1979.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

MATERNAL MORTALITY

From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

This 18-year-old, married, white, gravida 3, para 2, had apparently no prenatal care with this pregnancy.

In her second pregnancy, she delivered a normal infant, 4/28/76. The placenta was adherent and needed to be manually removed. She signed herself out against medical advice 4/30/76. Her postpartum course was uncomplicated, the physician merely desired to make certain she did not develop an endometritis.

The information concerning the third pregnancy (current) was obtained from the coroner who is the funeral director.

He said she delivered the morning of 11/25/77. She was attended by a local midwife. She delivered a female infant that has had apparently no problems. She apparently bled to death. An attempt was made to get the family to take her to the hospital; however, they refused. Their religion, Holiness, did not believe in physicians. She died at 9 p.m., November 28th. She was pronounced dead by the coroner at 11:15. There was no autopsy.

The cause of death was listed as "post maternity complications."

Discussion

This case was classified by the Maternal Mortality Committee as a direct obstetrical preventable death. It is published in the *Journal* for several reasons. The first of which is to inform the readership that this kind of event can happen today, a maternal death which is entirely preventable where proper medical care, such as in the state of Kentucky, would be readily available to a woman such as this. The second reason to present the case is to again emphasize that no woman today should die of hemorrhage related to obstetrics for adequate fluid and blood replacement is readily available and we have talked several times in the past about the 5 to 10-hour period of time that it takes a woman to be in such a fatal situation when obstetrical hemorrhage occurs.[1] The third reason to present this case is to emphasize that there are religious sects in our population that will refuse proper medical care. It is unfortunate that this 18-year-old, gravida 3, now para 3, died at such a young age leaving motherless children.

References 1. Beecham C T: An Analysis of Deaths from Postpartum Hemorrhage *Amer J Obstet Gynec* 53:442, 1947.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

Tenuate®
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION
Brief Summary
INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below
CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma Agitated states Patients with a history of drug abuse During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).
WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly *Drug Dependence* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe There are reports of patients who have increased the dosage to many times that recommended Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks *Use in Children* Tenuate is not recommended for use in children under 12 years of age
PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage Reports suggest that Tenuate may increase convulsions in some epileptics Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary
ADVERSE REACTIONS: *Cardiovascular* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic* Urticaria, rash, ecchymosis, erythema, *Endocrine* impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System* Bone marrow depression, agranulocytosis, leukopenia *Miscellaneous* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria
DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride) One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release One 75 mg tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc
Cincinnati, Ohio 45215, U S A

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati Ohio 45215 2. Hoekenga, M T., O'Dillon [Dillon], R H., and Leyland, H M A comprehensive review of diethylpropion hydrochloride In, Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed., New York, Raven Press, 1978, pp 391-404

Merrell

Overweight may not always be simple... complications can develop.*

Complicated or not...

Tenuate® Dospan® (IV)

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

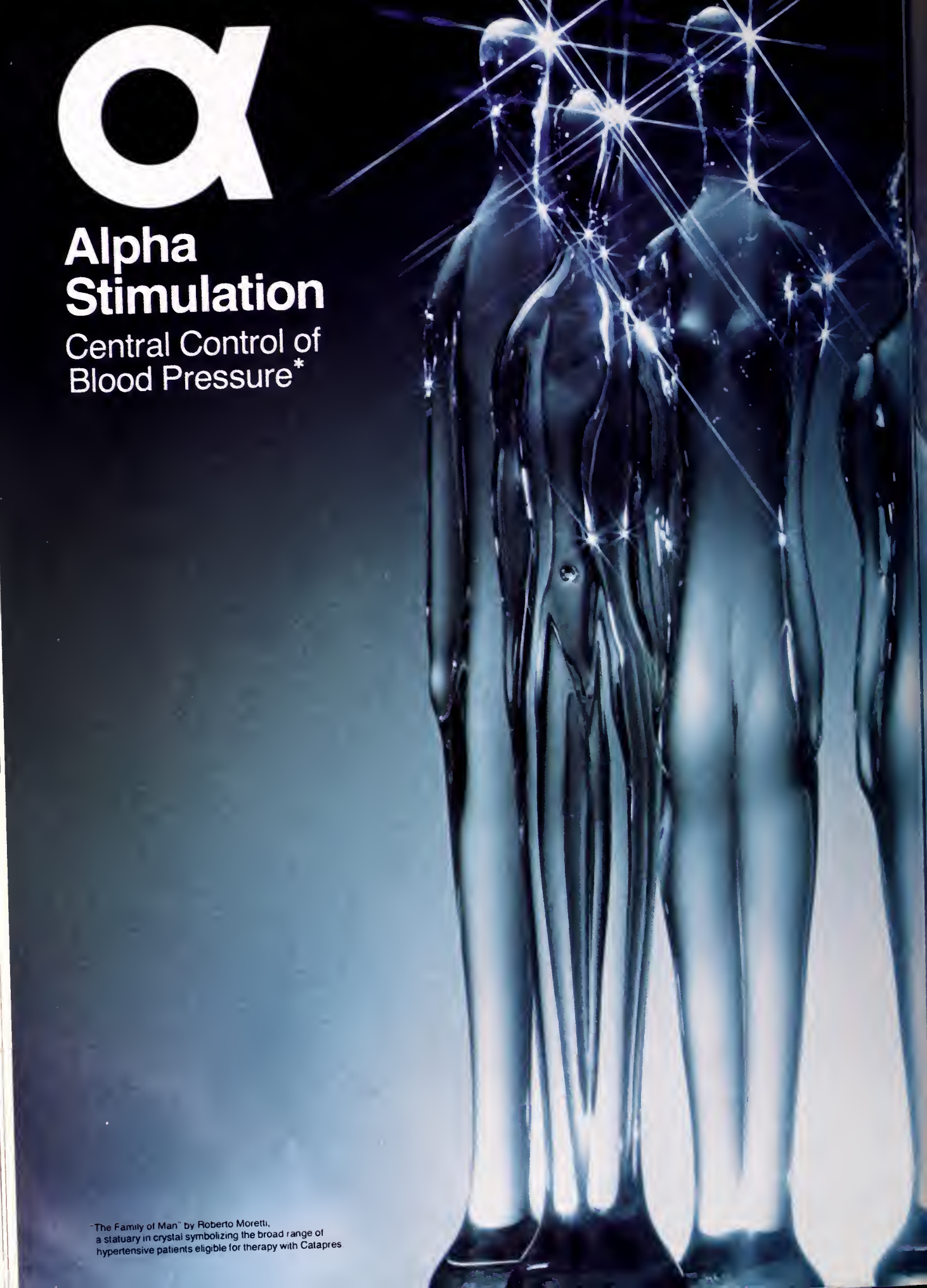
The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.


α
Alpha
Stimulation
Central Control of
Blood Pressure*
"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres® has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.



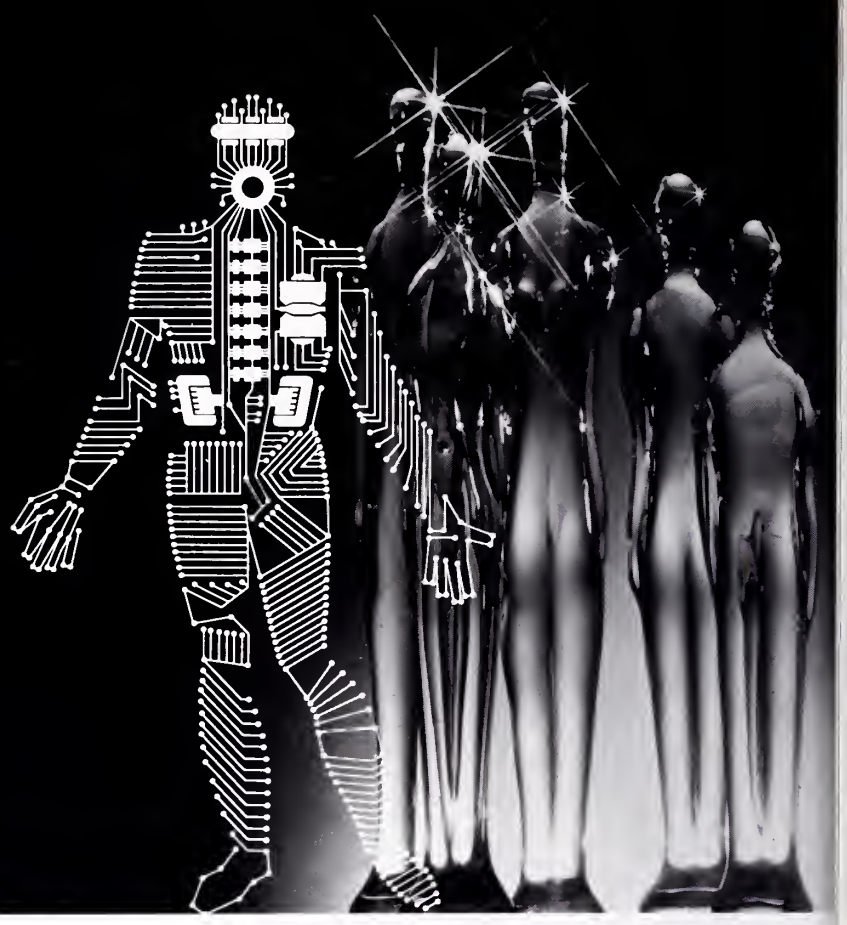
Now available in new 0.3 mg tablets

Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension

The Alpha Advantage:

It's for all kinds of hypertensives



Tablets of 0.1, 0.2, 0.3 mg

Catapres®

(clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 month longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness sedation. Constipation, dizziness, headache, and fatigue have been repo Generally these effects tend to diminish with continued therapy. The follo reactions have been associated with the drug, some of them rarely. (In s instances an exact causal relationship has not been established.) These incl Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormaliti liver function tests; one report of possible drug-induced hepatitis without ict and hyperbilirubinemia in a patient receiving clonidine hydrochloride, c thalidone and papaverine hydrochloride. Weight gain, transient elevation of b glucose, or serum creatine phosphokinase: congestive heart failure, Rayna phenomenon; vivid dreams or nightmares, insomnia, other behavioral chan nervousness, restlessness, anxiety and mental depression. Also rash, gioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associ with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryr itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecoma weakly positive Coombs' test, asymptomatic electrocardiographic abnorma manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished o sent reflexes and vomiting followed the accidental ingestion of Catapres (clon hydrochloride) by several children from 19 months to 5 years of age. Ga lavage and administration of an analeptic and vasopressor led to complet covery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-mi intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
Under license from Boehringer Ingelheim GmbH

Boehringer Ingelheim

Boehringer Ingelheim L
Ridgefield, CT 06877



THEME FOR THE YEAR "PRESCRIPTIONS FOR HEALTHIER LIVING"

Last year, "We Cared" and this year we are going to continue to care—so much so—that we are going to set personal goals for "healthier lifestyles" and, in so doing, hope to fully inspire others to do likewise. At a time when we all must be concerned with cost containment, it is imperative that we, as physicians' spouses, be cognizant of the image we portray in the community. If we become involved in promoting preventive health education, hopefully, the public will realize that we do care about **them.** It only takes a few "not caring" people to give a bad impression of physicians' families.

This is the Year of the Family and since families are of prime importance we hope to involve whole families in re-evaluating their lifestyles.

Prescription #1—our physician spouses need to be in prime physical condition so we encourage them to have a yearly physical—practice what they preach.

Prescription #2—become involved in a physical fitness program that suits your individual needs.

Prescription #3—learn to deal effectively with the stresses in your life. Don't resort to tranquilizers and alcoholic beverages to help you cope.

Prescription #4—become knowledgeable about good nutrition—additives, preservatives, cholesterol, triglycerides and sodium. A good reducing diet for most is smaller portions of a well balanced diet and increased physical exercise.

Prescription #5—learn the lifesaving basic life support procedure for CPR and airway obstruction.

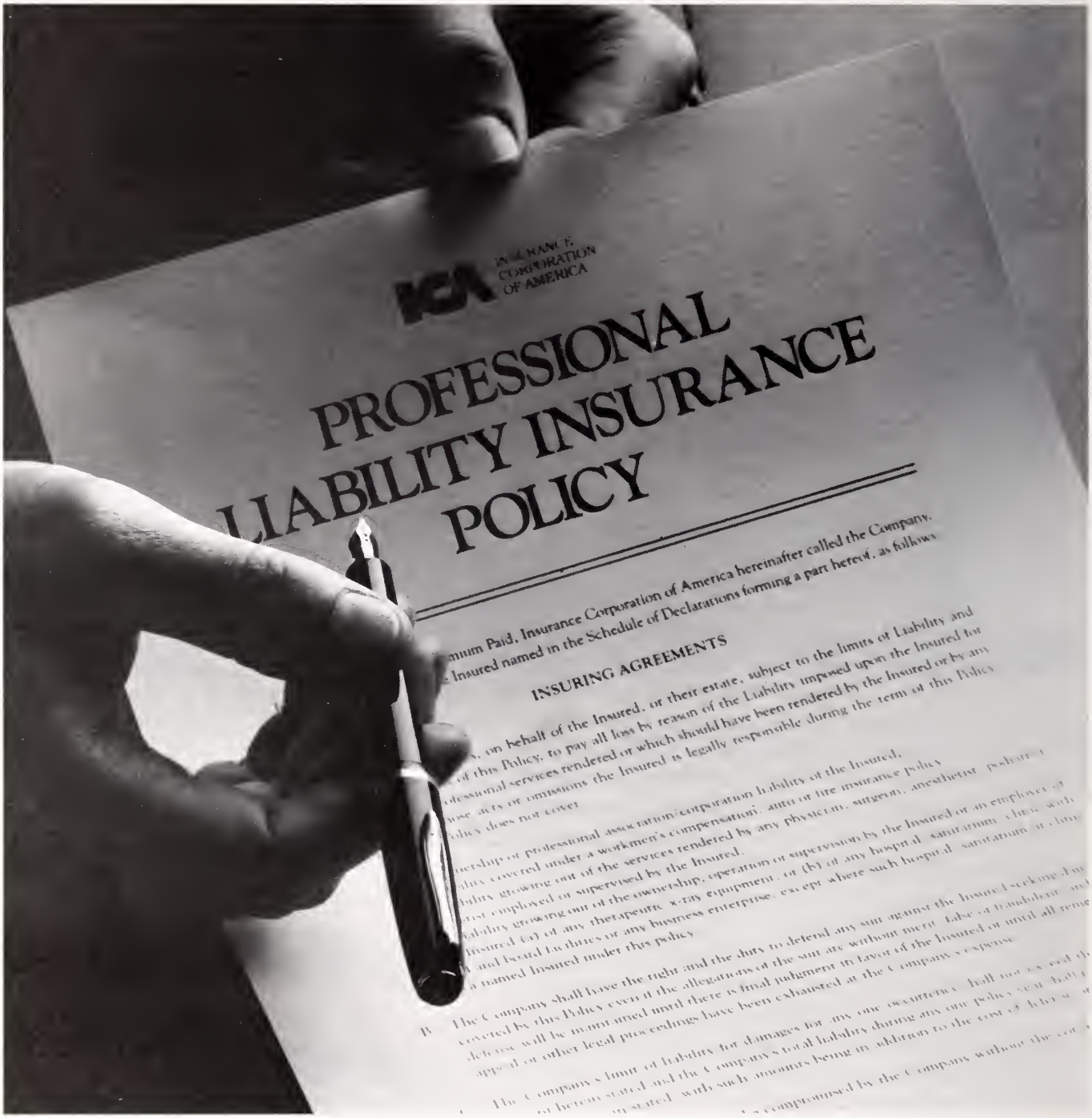
Prescription #6—become aware of self protection procedures. Rape is at an all time high.

Prescription #7—be aware of your spouse and any possible abuse of drugs and alcohol. KMA's Impaired Physician Committee would like to help before it's too late.

Prescription #8—prevent child and spouse abuse. An abused child many times becomes a child abuser as an adult.

Let's all "Shape Up for Life" and set an example. It is more meaningful when your friends see you adopting healthier lifestyles and you encourage them to do likewise.

BARBARA COX
AKMA PRESIDENT 1980-81



PUT A CONTRACT OUT ON FRIVOLOUS CLAIMS.

Frivolous claims can be a nightmare. Especially if your malpractice insurance company doesn't stand by you. And unfortunately, all too many don't.

For instance, most malpractice insurance policies give you no say in whether to fight or settle a claim. And if you do have a say, you can be hit with a costly penalty for going to court. Another thing. Many companies don't pay all legal expenses. And most companies seldom use lawyers to process cases. Claims are often handled only by claims adjusters.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working for doctors. So we know the strong coverage and knowledgeable service physicians need from their liability insurance. And since we specialize in this one field, we can offer a superior policy for a realistic premium. Premiums based on actual costs in your state.

So select the policy with the protection you need. Put a contract out on frivolous claims. For more information contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas Phone 1-800-231-2615

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

EDITORIAL

A bucolic sage has observed that people will lie to one another about alcohol, money and sex. Probably this list is not exclusive, but there is a certain element of truthfulness in his premise. Instead of the pejorative "lie" we may prefer to use dissimulation, prevarication, mendacity or fibbing—all nicer words for straying purposely away from the facts. It is a very human and very common failing. Ever since we've cared what happened to us or to others, lying has been a problem to our kind. Some even maintain that the world is a better place for it. Most lies are not life threatening, some may even be intended kindly. Our special concerns as a society come when lies are hurtful and damaging, threatening relationships or even lives.

On the other hand a lie to oneself is generally considered tolerable, not wicked, a sign of our continuing frailty. Even when we observe it in ourselves it brings out only a chagrined tolerance and our hope that it will not always be so.

Another feature of our culture is that it likes alcohol but does not like alcoholism. Accordingly, this latter condition can, with the aid of the victim, be difficult to diagnose since he lies so well; lies to himself, lies to others.

From this situation has grown a number of interesting tests, simple self-administered true-false tests, designed to make the alcoholic stop lying and to acknowledge alcoholism which is the point—the only point—at which treatment begins.

Johns Hopkins has such a test. Another is the Michigan Alcoholism Screening Test. The Mayo Clinic has modified another to their own liking. There are more, and with a little thought and time most of us could come up with a passable test of our own.

In many cases these tests and this approach work. We have seen alcoholics, filled with denial, who gradually wove a net of acknowledgements about themselves, ruefully watching the facts pile up even as they answer these few questions.

The goal is not embarrassment. It is honesty, honesty with ourselves and we are surely the better off for it. Alcoholism, and its companion, drug abuse, will be a continuing problem in our world so long as we live. But there are many treatable cases even in the physicians of our State and for those we have a special concern. Most are treatable, but a confrontation between the victim and the illness must be made; something has to change. Acknowledgement of the problem is absolutely basic to treatment.

If you would like a copy of a self-administered test for alcoholism to give to someone important to you we will send you one. Write to the Physicians' Health Committee of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205 and we'll send it to you. For your alcoholic friend, it just might be the most important test of his whole career.

DLS

WE SUPPORT ALL PHYSICIANS (especially when they are ill)

Specialists in endorsed disability income protection for professional groups for over 40 years

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975
2. Antimicrob. Agents Chemother., *11*:470, 1977
3. Antimicrob. Agents Chemother., *13*:584, 1978
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978
6. Antimicrob. Agents Chemother., *13*:861, 1978
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Lilly

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

000482

PROFILE

Senator John E. Trevey, M.D.

THERE seems to be a growing concern in the country today that government is becoming too involved in the running of our daily lives. Rules and regulations are being imposed in areas once considered separate from government control.

This is certainly evident in legislation directed toward or involving the medical profession. Doctors may feel either confused or overwhelmed by the politics involved in today's medicine.

One solution to the feeling of ineffectiveness is to join the process that makes the rules. Senator John E. Trevey, M.D., has done this. He is the only physician in the 138-member Kentucky General Assembly.

As a physician and senator, Doctor Trevey has found that he is able to combine his knowledge of medicine with politics. The two careers have, in the past, been considered incompatible. But when looking at the skills required for either job, the similarities outweigh the differences. Both require a diagnosis of the problem by cutting through debris, according to Doctor Trevey, and finding all the possible clues for treatment.



L R C Photo

When Doctor Trevey is not busy attending sessions in the General Assembly, he is Managing Physician for the IBM Corporation in Lexington. The corporation employs 7,200 workers and is involved in producing typewriters and ink. Being in charge of a department with another full-time doctor, a part-time psychiatrist and psychologist and a staff of nurses is certainly a full-time job for Doctor Trevey. But his move to Lexington from Virginia in 1966 allowed him the opportunity to become serious about politics. "I started off being very idealistic. Even in high school I wanted to be a family physician in a small town," says Doctor Trevey. For four and a half years he was a general practitioner in a town of 8,000 called Galax, Virginia. After delivering what Doctor Trevey believes to be about 2,000 babies and setting a lot of broken bones, he decided it was time for a change. This is when he moved to Lexington and became involved in occupational medicine. Doctor Trevey also found that for the first time in his medical career he had spare time.

In 1967, Doctor Trevey and his wife, Mary Joe, became active in the Republican Party working in

"We are now more cognizant of the fact that what office holders do affects our profession."

the campaign for Governor Louie Nunn. In 1971, Doctor Trevey became chairman of the Fayette County Republican Party and has since served in the Kentucky General Assembly as House member in 1978 and Senator in 1980.

Doctor Trevey has served on both the House and Senate Health and Welfare Committees. He has introduced a number of health related bills and has seen success in what he believes to be the most important ones.

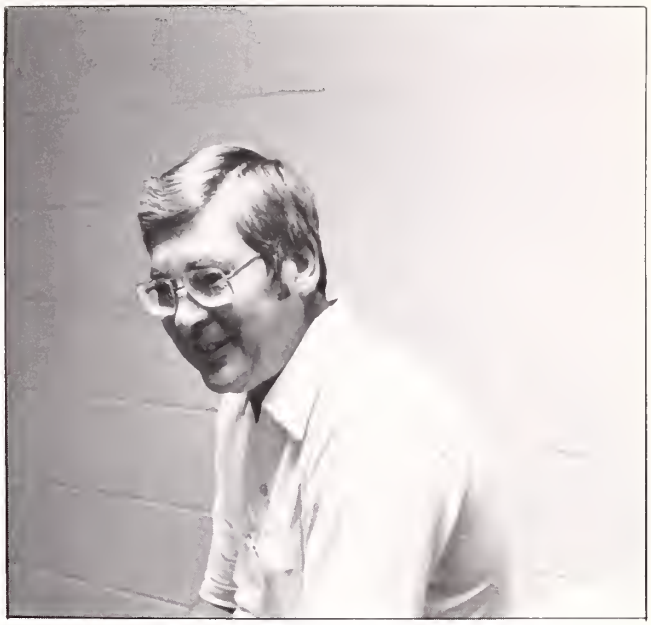
As a House member in 1978, Doctor Trevey sponsored a bill proposing sweeping changes in the State Medical Practice Act. With Doctor Trevey's support the bill passed the General Assembly without a dissenting vote. The bill gave the Kentucky Licensure Board more effective disciplining authority in taking action against a physician's license.

Doctor Trevey was also the sponsor of Senate Bills 135 and 329. The bills clarify the attainment of drivers licenses of people with vision defects and seizure disorders.

Being a Republican in a Democrat controlled legislature has not, he says, had a detrimental effect on legislature proposed or supported by him. "I believe that most of the legislators are oriented along philosophical lines rather than party lines. There are certain instances where one party may take a position on a given bill that is very important to the administration. However, most legislation passed is not party-oriented. Divisions occur more along regional and philosophical lines," Doctor Trevey believes.

Members of the General Assembly do seek advice from Doctor Trevey on many health related issues. Organizations looking for support also approach him for endorsement of their particular health related bills. In spite of this important position Doctor Trevey holds as a legislator-physician, he believes the medical profession in the past has given too little, too late in the form of political action and involvement.

The trend is changing he believes, partly due to the formation of Political Action Committees (PAC's). These have been accepted and supported by the medical community. "We are now more cognizant of the fact that what office holders do affects our profession." Nevertheless, Doctor Trevey quickly points out, "The disputes between ophthalmologists and paraprofessional



groups such as optometrists will not be over for a long time. And so far we are on the losing end in these fights," he admits.

He sees two important reasons for the setbacks in medical legislation. The first is a misunderstanding even among individual legislators about the medical role of ophthalmologists compared to optometrists. Even after quickly explaining to his political colleagues the differences, Doctor Trevey thinks it will probably have little impact on their decisions. The optometrist's availability to people in small towns is much greater than that of the opthalmologist. "The optometrist may have been fitting the family glasses for the last 25 years and doing a good job of it." says Doctor Trevey.

The second reason for the optometrists' success with legislation is their good job of contacting representatives. They operate at a "grass-roots" level, staying in contact with their legislators. According to Trevey, "The optometrists are politically active in their communities, often helping their representatives get elected. We in the KMA or medical profession bring in experts from the University of Louisville or Kentucky, but they are basically not as well listened to as the political friend down the street who has done a good job fitting glasses for 20 years. The ophthalmologists are going to have to become more politically active at the "grass roots" level and have some very hard and fast statistics that will show that they deliver better quality care."



The Kentucky General Assembly is basically conservative, according to Doctor Trevey. Legislators have seen the bad effects of over-regulation. One of the precautions against abuses in the executive branch is the establishment of the Capital Construction Overview Committee. As a member, Doctor Trevey explains its main purpose is to review capital bonds and look at all programs sponsored by the state government.

He believes that no state administration will ever have the power it has had in the past for two reasons: (1) Legislators have experienced independence and won't surrender this gain. (2) Enlightened politicians who know the issues won't be dictated to by the administration. As a result of this independence each legislator has more input into the legislative system. This in turn means that citizens of Kentucky can wield more power in state government by contacting the legislators and letting them know their views.

To show the powerful impact that individual physicians can have by contacting legislators, Doctor Trevey points out the unsuccessful Dental Practice Act he introduced in the 1980 General Assembly. He explains, "It initially had the unanimous blessing of the House of Delegates of the Kentucky Dental Association. However, through some misunderstanding and misinformation some dentists in the state became concerned. As a result of a few phone calls from a few dentists to some very strategic members of the Senate they were able to go against the official KDA position and kill the bill."

> "I believe my constituents see me as a person who is concerned with their tax dollars above all."

This may prove another point of Doctor Trevey's. He believes that legislators have a very high opinion of individual doctors. There is a suspicion to some degree, however, that organized medicine as a group is strictly self interested. This is why a few phone calls from individual physicians can have more influence than opinions from experts or lobbyists used by specialty groups.

To keep physicians adequately informed of legislation, Doctor Trevey suggests that all members of the KMA receive the "Legislative Bulletin" which is "eye catching and packaged for immediate attention," during the General Assembly sessions. He believes the key man system used by the KMA is helpful to an extent but



explains its shortcoming. "It is instituted too late. "We've got to look far enough ahead to influence the legislation before it ever gets too far down the track. Most minds are made up ahead of time and we must anticipate earlier, more effective means of action."

Dr. Trevey has continued his membership with all levels of organized medicine through his terms as state representative and senator. His point of view is usually consistent with that of the KMA, but he sees no conflict of interest occuring from this. He is not in active practice and is on a straight salary so he has no vested interest in Medicaid fees or state medical programs, he states. "I believe my constituents see me as a person who is concerned with their tax dollars



"We've got to look far enough ahead to influence the legislation before it ever gets too far down the track. Most minds are made up ahead of time . . ."

above all," says Doctor Trevey. "I have advocated and helped pass legislation to decrease taxes."

Specifically, in a special session, Doctor Trevey worked to get House Bill 44 passed which he felt was a significant piece of legislation for the constituents. It mandated that the increase in property taxes on the average would not exceed 4% per year unless there were a referendum. The ultimate passage of this will lead to a ceiling on property taxes across the state.

When Doctor Trevey is not busy with politics or medicine, he enjoys working around the house. He has tried a number of hobbies from boating and water skiing to earning a pilot's license and buying an airplane. Now he says he would like to find more time for golf.

His family is also involved in a number of projects. His wife, Mary Jo, was formerly a registered nurse. She is an active church member and is involved with the Fayette County Republican Party.

John, their 18-year-old son, is a freshman at the University of Virginia and has plans to become a doctor. Their daughter, Mary Elizabeth, is nine years old and stays busy riding horses, swimming on the swim team and taking piano lessons.

A smile lights up Doctor Trevey's face when he talks about his political activity as a legislator. He obviously enjoys his role as Senator. "The legislature gives me an outlet and emotional high I don't experience in medical practice." But Doctor Trevey admits that medicine is his first love. So luckily, he is able to do both and feel productive at each.

Text and Photos by Donna M. Young

KMA/AMA Honor Tim Lee Carter, M.D.

Tim Lee Carter, M.D., was honored at a special reception held in Washington, D.C., on June 24th, that was co-hosted by KMA and the American Medical Association. The reception was held to honor the occasion of Doctor Carter's retirement from the U.S. House of Representatives at the end of this session of Congress.

Held in the Gold Room of the Rayburn House Office Building, the reception was attended by a group of about 75, which included members of Congress and their wives, as well as KMA members and spouses. Among the invited guests were Congressman Harley O. Staggers (D-W. Va.), Chairman of the House Committee on Interstate and Foreign Commerce; Congressman James T. Broyhill (R-N.C.), ranking minority member of the Committee; Congressman Samuel L. Devine (R-Ohio), second ranking minority member; Congressman Henry A. Waxman (D-Cal.), Chairman of the Health Subcommittee that Doctor Carter has served on; and Congressmen David E. Satterfield, III (D-Va.), Phil Gramm (D-Tex.), and Dave Stockman (R-Mich.). Presiding at the meeting was Chairman of the AMA Board of Trustees Lowell H. Steen, M.D.

Several testimonials were made by Doctor Carter's Congressional colleagues, who cited his diligence, fairness, tenacity and compassion over the years and the great contributions he had made in shaping and acting as a key figure in enacting several significant health-related bills.

Comments were also made by Fred C. Rainey, M.D., Chairman of KMA's National Legislative Committee and member of the AMPAC Board, and Mrs. Harold B. Barton. Doctor Rainey acknowledged Doctor Carter's unswerving representation of the medical profession and his championship of sometimes difficult, but just, medical views. Mrs. Barton remembered her long acquaintance with Doctor and Mrs. Carter as neighbors and fellow Republicans.

A presentation was made by KMA President Robert S. Howell, M.D., as a token of thanks and esteem on behalf of Kentucky physicians. John S. Zapp, D.D.S., Director of the AMA Washington Office, presented Doctor Carter with a caricature on behalf of AMA.

How's Your Cost Consciousness?

August—Have hospital social service evaluate patients who will probably need extended care shortly after admission rather than at the end of their stay.

Refuse to be pressured into services that are covered by insurance and are therefore "free."

Discharges should be planned well in advance so that the patient and family can be notified regarding the plans and unnecessary prolongation of hospital stay for trivial reasons can be avoided.

KMA ANNUAL WASHINGTON VISITATION AND BANQUET

KMA's annual Washington visitation and banquet were held on Wednesday, June 25. The meeting was preceded by a briefing given by AMA lobbyists in the AMA Washington Office on current legislative issues.

All day Wednesday was devoted to visiting Kentucky's Congressmen in their offices. Discussions were held with each Congressman by KMA officers about specific concerns and every KMA member and spouse saw his representative. Following the visits, a banquet was held in the Capitol Hilton Hotel to honor the legislators in a relaxed social atmosphere, with attendance by all but one Congressman. This commendable turnout was matched by record attendance on the part of KMA members and their spouses, who numbered over 50.

Included in the event were some brief remarks by retiring 5th Ky. District Congressman Tim Lee Carter, M.D., and a chance appearance by Mr. Hal Rogers, Republican candidate for Congress from the 5th District.

Doctor Cassady is Nominated President-Elect of KMA

Ballard W. Cassady, M.D., a Pikeville General Surgeon, has been nominated for the office of President-Elect of the Kentucky Medical Association. A graduate of the University of Louisville School of Medicine, Doctor Cassady is a Fellow of the American College of Surgery and has served as President of the Kentucky Chapter. Doctor Cassady is a member of the Pikeville Medical Society, Kentucky Medical Association, American Medical Association and the Southeastern Surgical Congress.

A past President of the Pikeville Medical Society, Doctor Cassady has served two terms as Trustee of the 14th District of the Kentucky Medical Association and as Vice Chairman and Chairman of the Kentucky Medical Association Board of Trustees. He has been Chairman of KMA's Budget Committee for the past 10 years. His primary medical interests in the past few years have been concerned with the rising costs and unavailability of professional liability insurance for physicians. Doctor Cassady was one of two physicians named to the Governor's Hospital and Physicians' Professional Liability Insurance Advisory Committee by Governor Julian Carroll in 1975 to study and make recommendations to the Governor and the General Assembly. In 1978 the Kentucky Medical Association formed the Kentucky Medical Insurance Company, and Doctor Cassady was named Chairman of the Board and President.

Doctor Cassady and his wife Ann live in Pikeville. They have four children.



Doctor Cassady

Members in the News

NEW MEMBERS

BARREN

Phillip W. Bale, M.D., Glasgow
Steve Davis, M.D., Glasgow
Bharat Mody, M.D., Glasgow
Bharati Mody, M.D., Glasgow
Gilman P. Peterson, Jr., M.D., Glasgow

BELL

Francisco C. Mappala, M.D., Middlesboro
Javad Sani, M.D., Middlesboro

BOURBON

Gary G. Spencer, M.D., Paris

BOYD

Glenn F. Haeberle, M.D., Ashland
Naji E. Hajjar, M.D., Ashland
Charles Rhodes, M.D., Ashland
Pravin Shah, M.D., Ashland

CALDWELL

Robert W. Hodge, M.D., Princeton

CALLOWAY

David A. Eberle, M.D., Murray

CAMPBELL-KENTON

James L. Armitage, M.D., Covington
Gary Melton, M.D., Fort Mitchell
John R. Pancoast, M.D., Ft. Thomas
James E. Randolph, M.D., Covington
James J. Schneider, M.D., Covington

CARROLL

Frank D. Law, M.D., Carrollton

CHRISTIAN

Hilderbando R. Hurtiz, M.D., Hopkinsville
James P. Myers, M.D., Hopkinsville
Marilyn R. Moody, M.D., Hopkinsville
Charles D. Ross, M.D., Hopkinsville
Irene Y. Villarosa, M.D., Hopkinsville

DAVIESS

Erlan C. Duus, M.D., Owensboro
Young Sook Kim, M.D., Owensboro
Roger L. Lubbers, M.D., Owensboro
Gilberto Rivero, M.D., Owensboro

FAYETTE

William C. Allen, M.D., Lexington
William C. Robertson, M.D., Lexington
James W. Shafer, M.D., Lexington
Phillip A. Tibbs, M.D., Lexington
Michael Willig, M.D., Lexington

FLOYD

Agripino D. Grino, M.D., Paintsville
Raghu R. Sundarem, M.D., Martin

GRAVES

Barry Bichon, D.O., Paducah

HARLAN

Samir Dawoud, M.D., Harlan

HENDERSON

Willis B. Blue, Jr., M.D., Henderson

HICKMAN

John W. Brazzell, M.D., Clinton

HOPKINS

James A. Haney, M.D., Madisonville
David J. Hays, M.D., Madisonville
Karl E. Heine, M.D., Madisonville
Cynthia R. Hines, M.D., Madisonville
Lynn W. Leigh, M.D., Madisonville
James J. Logan, Dawson Springs
Nathan L. Moore, M.D., Madisonville
James P. Senter, M.D., Madisonville
Grant Stevenson, M.D., Madisonville
Dennis A. Ulrich, M.D., Madisonville

JEFFERSON

Steven T. Ackerman, M.D., Louisville
John T. Algren, M.D., Louisville
Joseph Blandford, Jr., M.D., Louisville
Walter O. Bruning, M.D., Louisville
Patrick Connelly, M.D., Louisville
John P. Gearhart, M.D., Augusta, GA.
Max L. Irick M.D., Louisville
W. Scott Jones, M.D., Louisville
Martin D. Logsdon, M.D., Louisville
Gilbert Marchal, M.D., Louisville
Mack R. Matthews, III, M.D., Louisville
Morris R. Nacke, M.D., Melv Newport, RI
Janey Lynn Pope, M.D., Carrboro, NC
Barton Reutlinger, M.D., Louisville
James D. Riehm, M.D., Louisville
William S. Rubin, M.D., Louisville
William M. Sligar, M.D., Jeffersonville, IN
George C. Stege, III, M.D., Louisville
John R. Stockwell, M.D., San Antonio, TX
Lawrence Wasser, M.D., Louisville
Barb Weakley-Jones, M.D., Louisville
Gary E. Wheeler, M.D., Louisville
Sara E. Zieverink, M.D., Louisville

JOHNSON

Pedro Arriola, M.D., Paintsville
Ermelinda U. Rause-Arriola, M.D., Paintsville

LAUREL

Gopal K. Rastogi, M.D., London

LETCHER

Cedric Craig, M.D., Whitesburg
Chalapathi G. Rao, M.D., Whitesburg

MADISON

William R. Allen, M.D., Richmond
Paula D. Fletcher, M.D., Richmond

MARSHALL

Cleland Ray Freeman, M.D., Benton

MASON

James D. Williams, M.D., Maysville

McCRACKEN

W. E. Adams, Jr., M.D., Paducah
Paul J. Grumley, M.D., Paducah

MERCER

Fred T. Tuttle, M.D., Harrodsburg

MUHLENBURG

Robert B. Brown, M.D., Greenville

NICHOLAS

Elzer T. Fuller, M.D., Carlisle

PENDLETON

David W. Walsh, M.D., Falmouth

PERRY

S. S. Parulekar, M.D., Hazard

PIKE

Tom McGuire, M.D., Pikeville

PULASKI

Glenn K. Blackburn, Jr., M.D., Somerset
Harry R. Kennedy, M.D., Somerset
Richard C. Morrow, M.D., Somerset
Ralph A. Murphy, M.D., Somerset
Milan S. Smolko, M.D., Somerset

ROWAN

Kenneth Smith, DDS, Morehead

TAYLOR

Stephen L. Bowers, M.D., Cambellsville

TODD

Frank A. Manthey, M.D., Elkton

UNION

Vasil Yosifov, M.D., Morganfield

WAYNE

J. A. Patel, M.D., Monticello

WOLFE

George E. Burnette, M.D., Campton

Announcing the 1980 Last Annual Kentucky Physicians Golf Tournament

This year the annual tournament will be played at the Audubon Country Club on Wednesday, Sept. 24, 1980. Tee off time is 11:00 AM to 2:00 PM. The field will be limited to the first 50 players to submit the entry forms.

_____ ENTRY FORM _____

Mail To: Donald L. Ware, M.D.
750 Medical Towers South
Louisville, Ky. 40202

FEE
$25.00 (inclusive)

INDICATE CATEGORY DESIRED:
1) OPEN _____ HANDICAP _____
2) OVER 50 _____ HANDICAP _____
3) NO HANDICAP _____

NAME _____
ADDRESS _____
_____

Foresome preference:
1) _____
2) _____
3) _____

CME Committee Encourages Accreditation

The CME Committee is undertaking a program to encourage more institutions, medical specialty societies and specialty groups to become accredited. Members of the committee will be working with various sites across the state to provide input and guidance in the development and completion of the application and the establishment of procedures and guidelines developing quality programming.

The Committee cordially invites any interested group to contact the KMA Headquarters Office, or stop by the committee's exhibit in the Scientific Exhibit area to discuss with a member of the committee the steps that must be undertaken for a group to become accredited. Voluntary CME is not mandatory in Kentucky.

The committee feels it is important that enough sites in the state offer quality CME Programming so any physician in the state may obtain programming with a minimum amount of travel

Headquarters Activity

AUGUST

6-7	KMA Board of Trustees, Louisville
6	Judicial Council, Louisville
12	*Journal* Editors, Louisville
12	Licensure Board Hearing, Louisville
28	Paramedic Advisory Committee, Louisville

SEPTEMBER

9	*Journal* Editors, Louisville
22-25	KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville
23	Maternal Mortality Study Committee, Ramada Inn/Bluegrass Convention Center, Louisville
25	Board of Medical Licensure, Louisville

OCTOBER

1-3	Officers Staff Conference, Louisville
14	*Journal* Editors, Louisville
23	Claims and Utilization Review Committee, Louisville

The Office of Continuing Medical Education, University of Louisville School of Medicine, will begin offering a 25% reduced fee on registrations charged for CME offerings for all medical school alumni.

The 25% reduction will apply to all programs designated Category I through this office and becomes effective July 1, 1980. Meal and social functions will not be included in the 25% reduction offer.

Medical School alumni interested in taking advantage of this offer are asked to clip the attached coupon, checking the area of specialty/practice of interest to you. Appropriate brochures and information will be mailed to your preferred address. Mail the coupon to Gerald D. Swim, Assistant Dean for Continuing Medical Education, School of Medicine, University of Louisville, Louisville, Kentucky 40292.

_____ Allergy
_____ Arthritis and Rheumatism
_____ Cardiovascular Disease
_____ Dermatology
_____ Emergency Care
_____ Endocrinology
_____ Family Medicine
_____ General Medicine
_____ Geriatrics
_____ Internal
_____ Obstetrics and Gynecology
_____ Ophthalmology
_____ Pediatrics
_____ Psychiatry
_____ Surgery
_____ Urology
_____ Others (Please list)

_____

_____

_____

NAME _____

ADDRESS _____

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR SALE

X-RAY EQUIPMENT, x-ray machine, fixed bucky table with Continental controls, accessories including darkroom supplies, (502) 895-2472.

MEDICAL OPPORTUNITIES

PROSPEROUS WESTERN KY. COMMUNITY with expanding Medical Facility needs qualified Ophthalmologist, ENT, Urologist, Orthopod, OB-GYN, Internist and F.P. Excellent guarantees and practice opportunity for the individualist. Contact W. L. Miller, M.D., Chairman, Phys. Recruit. Com. Muhlenberg Community Hospital, Greenville, KY 42345, (502) 338-4211

BEAUTIFUL COUNTRY. Town of 8,000 in central Kentucky needs one additional physician to complete staffing for a brand new 30 bed hospital. Family practice with strong internal or pediatric experience would be ideal. In addition to the community pace and life-style, the hospital will provide an attractive financial package. Write: David A. Brisiel, Health Care Corporation, 301 Health Care Building, Northgate Park, Chattanooga, Tennessee 37415, or call collect: 615-870-3913

POSITION WANTED

PULMONARY INTERNIST, 29, ABIM and Pulmonary Board eligible, seeks partnership with internist(s), with or without sub-speciality. Prefer mid or western Kentucky. Available July 1981. William M. O'Bryan, M.D., 3328 Westcliffe Court, Augusta, Georgia 30907.

We're not asking you for money.

Just a few words. To people who need us but don't know we exist.

We're Recording for the Blind. We're already helping more than 13,000 handicapped students. But there are a lot more out there who need our help.

You know who they are. In your work you come across students who are blind, dyslexic or physically unable to handle books. These are the students we help. Since they cannot read their textbooks, we do it for them. On tape. And we send the tapes to the students free of charge.

All we want you to do is teli eligible students about us. Have them contact: Student Services, RFB, Inc., 215 East 58th Street, N.Y., N.Y. 10022, (212) 751-0860. We'll take it from there.

It's such a little thing to ask.

Recording for the Blind is a non-profit organization. All contributions are tax deductible.

Recording for the Blind, Inc.
an educational lifeline.

Practice what we teach.

Today there are over 31 million men, women and children suffering from the many forms of arthritis and related rheumatic diseases. And there just aren't enough trained rheumatologists to help them.

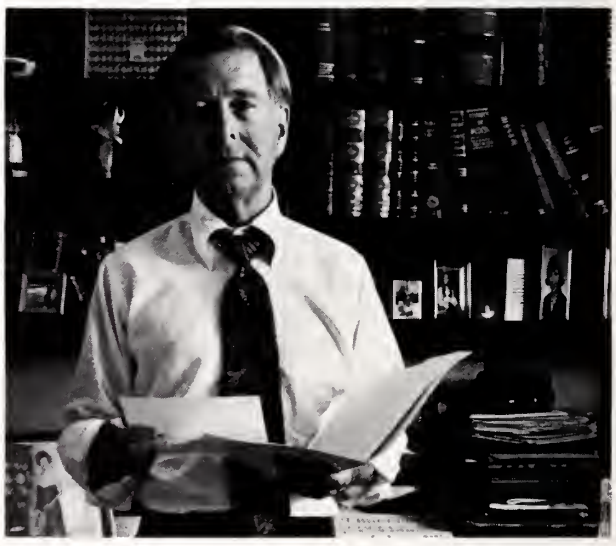
That's why arthritis sufferers need your help.

They must depend heavily on the family practitioner for better diagnosis, more effective patient treatment.

Contact your local Arthritis Foundation chapter for the latest information on arthritis. This includes continuing educational seminars by leading rheumatologists, scientific meetings, "outreach" programs—as well as the "Bulletin on the Rheumatic Diseases," "Arthritis and Rheumatism Journal," "Primer on the Rheumatic Diseases," audio cassettes and other professional materials. Free disease handbooks and medication pamphlets are also available to patients.

Please. Let us help your practice with what we teach.

The Arthritis Foundation helps doctors help.



ARTHRITIS FOUNDATION

1980 Annual Meeting Section

TABLE OF CONTENTS

KMA Officers for 1979-80 490
Official Call to Meeting 493
District Trustees and Trustee Map 494
Delegates to the KMA House 495
Reference Committee Activity 497
Nominating Committee 498
Special Features 499
Program Summary 501
Scientific Program 503
Technical Exhibits 510

KMA OFFICERS 1979-1980



Robert S. Howell, M.D.
President



Frank R. Pitzer, M.D.
President-Elect



Richard J. Menke, M.D.
Vice-President



S. Randolph Scheen, M.D.
Secretary-Treasurer



Bennett L. Crowder, II, M.D.
Speaker of the House



Peter C. Campbell, Jr., M.D.
Vice-Speaker of the House

PRESIDENT-ELECT
Frank R. Pitzer, M.D.
Hopkinsville

Frank R. Pitzer will be installed as President of the Kentucky Medical Association at the President's Luncheon on Wednesday, September 24.

A pathologist, Doctor Pitzer received his medical degree in 1961 from the University of Tennessee College of Medicine, Memphis. Doctor Pitzer is Laboratory Director at Western State Hospital in Hopkinsville and Consulting Pathologist at Muhlenberg County Hospital in Greenville and Clarksville Memorial Hospital, Clarksville, Tennessee. Doctor Pitzer served on the KMA Board of Trustees from 1973 until 1979. He is a member of the AMA, Southern Medical Association, the Kentucky Society of Pathologists and the American College of Pathology.

Doctor Pitzer was Chairman of the Board of Health for the Christian County Health Department from 1970 through 1979, and is State Key Man for the American College of Pathologists.

VICE-PRESIDENT
Richard J. Menke, M.D., Crestview Hills

Doctor Menke is in private practice of Orthopaedic Surgery. He has served as Eighth District Trustee of the KMA since 1974. Doctor Menke is a 1953 graduate of the St. Louis University School of Medicine. He is on active staff at St. Elizabeth Hospital and courtesy staff at St. Luke Hospital. Doctor Menke is a member of Campbell-Kenton Medical Society, the American Medical Association, Kentucky Orthopaedic Society and the American Academy of Orthopaedic Surgeons.

SPEAKER OF THE HOUSE
Bennett L. Crowder, II, M.D., Hopkinsville

Doctor Crowder served an unexpired term of one year as Vice-Speaker, and also serves as Parliamentarian for the Association. A general and thoracic surgeon, he is a 1961 graduate of the University of Tennessee. A Fellow in the American College of Surgeons, Doctor Crowder also sits on the Constitution and Bylaws Committee of KMA and is a former Secretary of the KEMPAC Board. He is active in numerous civic organizations, including the Jaycees, Rotary Club, and the Chamber of Commerce.

SECRETARY-TREASURER
S. Randolph Scheen, M.D., Louisville

Doctor Scheen was KMA Secretary for eight years prior to his election as Secretary-Treasurer in 1975. A dermatologist, he is a graduate of the University of Louisville and University of Minnesota medical schools. Doctor Scheen serves the Association as a member of the Budget Committee and Judicial Council. He is a member of the American Academy of Dermatology and the Alumni Foundation of the Mayo Clinic, and is a regular participant on local television and radio programs, answering questions from the public on dermatology.

VICE-SPEAKER OF THE HOUSE
Peter C. Campbell, Jr., M.D., Louisville

An ophthalmologist, Doctor Campbell is Clinical Professor of Ophthalmology at the University of Louisville School of Medicine. He is a member of the American Academy of Ophthalmology and Otolaryngology, The Kentucky Academy of Eye Physicians and Surgeons, and is President of the medical staff at Methodist Evangelical Hospital in Louisville. Doctor Campbell is a 1961 graduate of the University of Louisville School of Medicine.

AMA Delegates

David B. Stevens, M.D., Lexington

Doctor Stevens is the Senior Delegate to the AMA from Kentucky, having served since 1965 as Delegate or Alternate Delegate. An orthopedic surgeon, Doctor Stevens is a Past President of the Fayette County Medical Society, and served eight years on the KMA Committee on Legislative Activities. A 1955 graduate of Northwestern University, Doctor Stevens is Assistant Clinical Professor of Surgery at the University of Kentucky.



Fred C. Rainey, M.D., Elizabethtown

Doctor Rainey was elected an AMA Delegate in 1974, having previously served as President of KMA, Alternate AMA Delegate, and Board Chairman of KEMPAC. A 1955 graduate of the University of Tennessee College of Medicine, Doctor Rainey is a family physician. He is a member of the AMA Council on Legislation, the American Medical Political Action Committee, the Kentucky Academy of Family Physicians, and the American Academy of Family Physicians.



Harold D. Haller, Sr., M.D., Louisville

Elected an AMA Delegate in 1976, Doctor Haller has been active on the Committee on Maternal and Child Health and the Committee on Health Care Costs. Doctor Haller graduated in 1963 from Bowman Gray Medical School, and has been in family practice since then. A charter member of the American Board of Family Practice, Doctor Haller also has served as President of the Kentucky Chapter of the American Academy of Family Physicians.



New Trustees

Henry R. Bell, Jr., M.D., Elkton

Doctor Bell is serving as Trustee from the Third District. A general practitioner, Doctor Bell is on the staff of Jennie Stuart Memorial Hospital, Hopkinsville. He was a member of the KMA House of Delegates from 1970 to 1975 and an alternate Trustee for KMA from 1975 until 1979. Doctor Bell is a 1966 graduate of the University of Kentucky School of Medicine.

Robert E. Smith, M.D., Covington

Doctor Smith now serves as the Fifth District Trustee, filling the unexpired term of Richard J. Menke, M.D. A family practitioner, Doctor Smith is a 1959 graduate of the University of Louisville School of Medicine, former Chairman of the Kenton County Board of Health and an alternate Trustee for the Eastern District from 1978 to 1979. Doctor Smith is Assistant Clinical Professor of Medicine at the University of Kentucky.

William P. McElwain, M.D., Lawrenceburg

Doctor McElwain is serving as Seventh District Trustee. A family practitioner, Doctor McElwain is a 1958 graduate of the University of Louisville School of Medicine. He is a former Health Commissioner for Kentucky, and has been active in the KMA Rural Kentucky Medical Scholarship Fund and the KMA Commission on Health Care for the Poor.

Journal Editors

EDITOR

A. Evan Overstreet, M.D., Louisville

Doctor Overstreet had served on the Editorial Board for more than six years before becoming Editor of *The Journal* in September 1977. An internist, Doctor Overstreet is a 1955 graduate of the University of Louisville School of Medicine. He is a member of the American Society of Internal Medicine, the American College of Physicians, and the Transylvania Medical Society.

Paul C. Grider, Jr., M.D., Louisville

Doctor Grider has served as Scientific Editor for *The Journal* since 1975. An internist, Doctor Grider was President of the Louisville Society of Internists from 1976 to 1977 and also former President of the medical staff at Methodist Evangelical Hospital. Doctor Grider is a 1958 graduate of the University of Louisville School of Medicine.

Milton F. Miller, M.D., Louisville

Doctor Miller is Associate Clinical Professor of Medicine at the University of Louisville School of Medicine. An internist, Doctor Miller has served as Assistant Editor of *The Journal* since 1976, and has been on the Membership Committee of the Jefferson County Medical Society. He is a 1954 graduate of the University of Louisville.

James P. Moss, M.D., Louisville

Doctor Moss is serving his third year as Assistant Editor of *The Journal.* He is a surgeon and Assistant Clinical Professor in the Department of Surgery at the

University of Louisville School of Medicine. A diplomate of the American Board of Surgery, Doctor Moss is active in the Jefferson County Medical Society and KMA. He graduated from the University of Louisville School of Medicine in 1966.

G. Randolph Schrodt, M.D., Louisville

Doctor Schrodt has served as Assistant Editor since 1974. A 1954 graduate of the University of Louisville School of Medicine, Doctor Schrodt is a pathologist, and is Professor and Chairman of the Department of Pathology at the University of Louisville School of Medicine. He is a member of the American Society of Clinical Pathologists and the International Academy of Pathology.

Stephen Z. Smith, M.D., Louisville

Doctor Smith has served as Assistant Scientific Editor for *The Journal* since 1977. A dermatologist, Doctor Smith is a 1971 graduate of Johns Hopkins University School of Medicine. He is a member of the American Academy of Dermatology, the Kentucky Medical Association and the American Medical Association.

David L. Stewart, M.D., Louisville

Doctor Stewart, a former Editor of the Jefferson County Medical Society Bulletin, is in his fourth year as Assistant Editor of *The Journal.* A psychiatrist, Doctor Stewart graduated from the University of Louisville in 1946, is a member of the American Psychiatrist Association, and is Chairman of the KMA Committee on Physician's Health.

Other Editorial Positions

Regional Editors—Appointed in 1977

Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

Official Call KMA Annual Meeting

To the officers and members of the component county medical societies of the Kentucky Medical Association.

Meeting Place

The Annual Meeting of KMA will convene on Tuesday, Wednesday, and Thursday, September 23, 24, 25, at the Ramada Inn/Bluegrass Convention Center, Louisville. The first general session will be called to order at 8:30 a.m., Tuesday.

The House of Delegates

The first regular session of the House of Delegates will convene at 9 a.m., Monday, September 22, in the Julia Belle room of the Ramada Inn/Bluegrass Convention Center. The second regular business session will begin at 6 p.m., Wednesday, September 24, in the Julia Belle Room of the Ramada Inn/Bluegrass Convention Center.

Registration

The registration desk will open for Delegates in the Bluegrass Convention Center lobby at 8 a.m., Monday, September 22 and at 5 p.m. Wednesday, September 24. General registration will also be held in the lobby of the Convention Center from 8 a.m. to 5 p.m., Tuesday and Wednesday, and 8 a.m. to 3:30 p.m. on Thursday.

Number To Use For Messages is 502-491-1929

A Message Center will be set up during the 1980 KMA Annual Meeting. The telephone number where you may be reached is 491-1929. This is a central hotel number through which all messages will be routed.

Staffed at all times during the meeting, the Message Center will be located inside the lobby of the Bluegrass Convention Center. Paging of individual physicians is not possible due to the arrangement of facilities for the meeting.

Only emergency calls will be posted on blackboards in the lobby of the Convention Center. All other messages will be kept on file at the Message Center until they are called for. It is requested that physicians check at the Message Center often for any messages.

The phone number at the Headquarters Hotel, Ramada Inn, is (502) 491-4830. You may be reached during the meetings of the House of Delegates at that number. Your name will be posted on a blackboard at the front of the room when you receive a call.

You are urged to make use of the Message Center. Be sure to leave these numbers at your home, office and hospital.

KMA DISTRICT TRUSTEES
1979-1980 Associational Year



1. WALLY O. MONTGOMERY
Paducah

2. R. J. PHILLIPS*
Owensbora

3. HENRY R. BELL
Elktan

4. CHARLES B. SPALDING
Bardstawn

5. WALTER S. COE
Lauisville

6. EARL P. OLIVER
Scattsville

7. WILLIAM P. McELWAIN
Lawrenceburg

8. ROBERT E. SMITH
Cavingtan

9. DON R. STEPHENS
Cynthiana

10. RICHARD F. HENCH*
Lexingtan

11. DWIGHT L. BLACKBURN†
Berea

12. WILLIAM T. WATKINS*
Samerset

13. HOWARD B. McWORTHER
Ashland

14. HARVEY A. PAGE
Pikeville

15. DONALD C. BARTON
Carbin

KMA DELEGATES

ADAIR
Millard C. Loy, Columbia

ALLEN
Earl P. Oliver, Scottsville

ANDERSON

BALLARD

BARREN
Howard L. Edgin, Glasgow

BATH

BELL
Charles C. Moore, Jr., Middlesboro
Talmadge V. Hays, Pineville

BOONE

BOURBON
A. V. Echiverri, Paris

BOYD
Walter L. Cawood, Ashland
John W. Harrison, Ashland
Wiley E. Kozee, Ashland

BOYLE
David C. Liebschutz, Danville

BRACKEN

BREATHITT
Robert E. Cornett, Jackson

BRECKINRIDGE

BULLITT
W. Bruce Hamilton, Shepherdsville

BUTLER
Richard T. C. Wan, Morgantown

CALLOWAY
R. Gary Marquardt, Murray

CAMPBELL-KENTON
Gordon W. Air, Crestview Hills
Richard A. Allnutt, Edgewood
Carl J. Brueggemann, Covington
Frank Garamy, Jr., Crescent Springs
Thomas L. Heavern, Jr., Highland Heights
Howard A. Heringer, Jr., Fort Mitchell
William B. Monnig, Erlanger
Fred A. Stine, Highland Heights
Raymond J. Timmerman, Ft. Thomas

CARLISLE

CARROLL
Cecil D. Martin, Carrollton

CARTER
W. H. Matthew, Grayson

CASEY
Lewis E. Wesley, Liberty

CLARK

CLAY
W. E. Becknell, Manchester

CLINTON
Floyd B. Hay, Albany

CRITTENDEN
H. Gregory Maddux, Marion

CUMBERLAND
Samuel L. Rice, Burkesville

DAVIESS
James A. Baumgarten, Owensboro
R. Glenn Greene, Owensboro
Albert H. Joslin, Owensboro
R. John Sanders, Owensboro

EDMONDSON

ELLIOTT

ESTILL

FAYETTE
M. Cary Blaydes, Lexington
Peter P. Bosomworth, Lexington
Walter D. Brewer, Lexington
D. Kay Clawson, Lexington
Glenn U. Dorroh, Lexington
Harold T. Faulconer, Lexington
Ward O. Griffen, Jr., Lexington
Allen E. Grimes, Jr., Lexington
Ronald D. Hamilton, Lexington
Walter D. Harris, Lexington
Thomas M. Jarboe, Lexington
Van R. Jenkins, Lexington
Franklin B. Moosnick, Lexington
Charles H. Nicholson, Lexington
Edwin J. Nighbert, Lexington
John D. Perrine, Lexington
John E. Trevey, Lexington

FLEMING

FLOYD
Roger D. Akers, Martin
Larry M. Leslie, Prestonsburg

FRANKLIN
David L. Douglas, Frankfort
Willett H. Rush, Jr., Frankfort

FULTON

GALLATIN

GARRARD

GRANT

GRAVES
C. Douglas LeNeave, Mayfield
Henry Viles, Mayfield

GRAYSON
Victor F. Duvall, Clarkson

GREEN

GREENUP
John O. Jones, Flatwoods

HANCOCK

HARDIN
William M. Carney, Elizabethtown
Wreno M. Hall, Elizabethtown

HARLAN
Paul M. Walstad, Harlan
Milo H. Schosser, Lynch

HARRISON
A. C. Wright, Cynthiana

HART
Clem E. Nichols, Jr., Munfordville

HENDERSON
John W. McClellan, Jr., Henderson

HICKMAN
John W. Brazzell, Clinton

HOPKINS
W. R. Alexander, Madisonville
R. K. Bachman, Madisonville
C. R. Dodds, Earlington

JACKSON
Philip R. Curd, McKee

JEFFERSON
Berel L. Abrams, Louisville
Hugh P. Adkins, Louisville
Richard D. Allen, Louisville
Robert E. Arnold, Louisville
Harold W. Blevins, Louisville
Joseph R. Bowling, Louisville
Charles M. Brohm, Louisville
W. Cooper Buschemeyer, Jr., Louisville
E. Dean Canan, Louisville
James Childers, Louisville
Eugene H. Conner, Louisville
Samuel L. Cooper, Louisville
Paul W. Cronen, Jr., Louisville
Thomas C. Dedman, III, Louisville
Donne O. DeMunbrun, Louisville
Bob M. DeWeese, Louisville
Paul A. Fleitz, Louisville
Michael B. Flynn, Louisville
Gary Fox, Louisville
Daniel P. Garcia, Louisville

Lawrence G. Goldberg, Louisville
Laman A. Gray, Jr., Louisville
Larry P. Griffin, Louisville
John J. Guarnaschelli, Louisville
Claude C. Hazlett, Louisville
John G. Hubbard, Louisville
Walter I. Hume, Jr., Louisville
Arthur T. Hurst, Jr., Louisville
Jerome P. Lacy, Louisville
Theodore N. Lynch, Louisville
H. Burl Mack, Louisville
Joseph C. Marshall, Louisville
Edward N. Maxwell, Louisville
Mike McCall, Louisville
Roy J. Meckler, Louisville
James P. Moss, Louisville
Robert A. Noel, Louisville
Robert L. Nold, Sr., Louisville
Lynn L. Ogden, Louisville
C. Kenneth Peters, Jeffersontown
C. Ray Potts, Louisville
Raymond G. Shea, Louisville
Judah L. Skolnick, Louisville
Gerald D. Verdi, Louisville
A. Franklin White, Louisville
William E. Yancey, Louisville
Walter H. Zukof, Louisville

JESSAMINE

JOHNSON
Joseph H. Rapier, Jr., Paintsville

KNOTT
Denzil G. Barker, Hindman

KNOX
Rufino Crisostomo, Barbourville

LARUE

LAUREL
William D. Pratt, London

LAWRENCE

LEE

LESLIE
Anne A. Wasson, Hyden

LETCHER
Carl Pigman, Whitesburg

LEWIS
Jack Silvers, D.O., Vanceburg

LINCOLN
Charles C. Crase, Stanford

LIVINGSTON
Stephen Burkhart, Salem

LOGAN

MADISON
Don E. Cloys, Richmond
S. Delbert Fritz, Richmond

MAGOFFIN

MARION
J. W. Ratliff, Lebanon

MARSHALL
Keith E. Ellis, Benton

MARTIN

MASON

MCCRACKEN
John W. Kraus, Paducah
John D. Noonan, Paducah
W. Eugene Sloan, Paducah
Ben H. Taylor, Paducah

MCCREARY
Jerald M. Burgess, Whitley City

MCCLEAN
Hugh H. Wilhite, Calhoun

MEADE

MENIFEE

MERCER
Bacon R. Moore, III, Harrodsburg

METCALFE

MONROE

MONTGOMERY
Harold R. Gillespie, Mt. Sterling

MUHLENBERG

MORGAN
William J. Stamper, West Liberty

NELSON
Michael C. Hess, Bardstown

NICHOLAS

OHIO
Robert E. Norsworthy, Hartford

OWEN

OWSLEY
Mildred B. Gabbard, Booneville

PENDLETON
Robert L. McKenney, Falmouth

PENNYRILE

CALDWELL

CHRISTIAN
William C. Young, Hopkinsville

LYON
M. H. Moseley, Eddyville

TODD

TRIGG

PERRY
Donnie R. Spencer, Hazard

PIKE
Ronald D. Hall, Pikeville
Charles G. Nichols, Pikeville

POWELL

PULASKI

ROBERTSON

ROCKCASTLE
George W. Griffith, Mt. Vernon

ROWAN
David L. Harris, Morehead
Ranjit Sinha, Morehead

RUSSELL
James E. Monin, Jamestown

SCOTT
R. Kendall Brown, Georgetown

SHELBY-HENRY-OLDHAM

SIMPSON

SPENCER
William K. Skaggs, Taylorsville

TAYLOR

TRIMBLE
Carl Cooper, Jr., Bedford

UNION

WARREN
Nelson B. Rue, Bowling Green

WASHINGTON

WAYNE

WEBSTER

WHITLEY
C. William Briscoe, Corbin
R. D. Pitman, Williamsburg

WOLFE
George E. Burnette, Campton

WOODFORD
Norman S. Fisher, Midway

Reference Committee Activity

Speaker Bennett L. Crowder, II, M.D., Hopkinsville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 22. **A brief session** for Reference Committee Chairmen will be held at **12:30 p.m., Monday,** in the Delta Queen Room of the Bluegrass Convention Center. Any KMA member wishing to testify on any resolution or report is urged to be present for the **Reference Committee meetings** which will be held at **2:00 p.m., Monday, September 22,** in the Convention Center. These open sessions will last one hour, in order for all who wish to speak to be heard. Following the open hearings, the Committees will go into executive sessions to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final session of the House, Wednesday evening, September 24, in the Julia Belle Room of the Convention Center.

As Speaker of the House of Delegates, Doctor Crowder is in the process of finalizing appointments to the six Reference Committees, Credentials Committee, and Tellers Committee.

If your society has not yet submitted the name of your Delegate(s) to the Headquarters Office, you should do so immediately as only those names recorded in the office can be considered for appointment to one of these important committees.

A complete listing of members who will be serving on the six Reference Committees and the location of the Reference Committee meetings will be published in the *September issue of the KMA Journal.*

Anyone desiring names of Reference Committee members prior to the September issue being published should contact the Headquarters Office.

University of Louisville Medical School Reunions Scheduled for 1980

All University of Louisville graduating classes ending in "0" or "5" will be celebrating their reunions in conjunction with the Kentucky Medical Association meeting this year. The following reunion chairman have been selected:

1935—Irvin Abell, M.D.
Louisville, KY
1940—Edwin Paul Scott, MD
Louisville, KY
1945—Armond T. Gordon, MD
Louisville, KY
1950—Hoyt Gardner, MD
Louisville, KY
1955—Charles Smith, MD
Louisville, KY
1960—Roger D. Salot, M.D.
Louisville, KY
1965—Robert A. Noel, MD
Louisville, KY
1970—Salvatore J. Bertolone, MD
Louisville, KY
1975—Dorothy Mitchell, MD
Louisville, KY

For further information please contact either the reunion chairmen or Miss Billie Clary, HSC Relations Office, 114 Carmichael Bldg., University of Louisville, KY, 40292, or call 502-588-5783.

Medical Alumni Reception & Information Booth

A University Medical Alumni Reception will be held on Tuesday evening from 5:00-7:00 p.m. A site selection has not been made at this time.

The alumni information booth will be available on Monday, September 22 through Thursday, September 25 to assist alumni in making contact with fellow classmates and for information in general concerning the University of Louisville School of Medicine.

Medical Alumni Calendar of Events

September 2	Medical Alumni Association Board of Governors Meeting
September 23	Medical Alumni Reunions & Reception
November 17-20 & 24	Medical Alumni Telethon

Election of Trustees and Alternate Trustees

The House of Delegates will elect five District Trustees and five Alternate Trustees at its second regular session, Wednesday, September 24. Nominations will be made by the Delegates from the Electing Districts at a meeting following the first session of the House on Monday, September 22.

The Nominating Committee will report at the close of the first scientific session on Tuesday, September 23. Further nominations may be made from the floor at the final session of the House on Wednesday evening, September 24. All nominations are considered and acted upon by the Delegates at this final session.

Districts electing Trustees for three-year terms are: **FIRST DISTRICT** (incumbent, Wally O. Montgomery, M.D., Paducah); **THIRD DISTRICT** (incumbent, Henry R. Bell, M.D., Elkton); **FOURTH DISTRICT** (incumbent, Charles B. Spalding, M.D., Bardstown); **TWELFTH DISTRICT** (incumbent, William T. Watkins, M.D., Somerset); and **FOURTEENTH DISTRICT** (incumbent, Harvey A. Page, M.D., Pikeville).

Districts electing Alternate Trustees are the same as those electing Trustees. Incumbents are: James E. Adams, M.D., Paducah (1st); Sam H. Traughber, M.D., Hopkinsville (3rd); Terrell D. Mays, M.D., Elizabethtown (4th); Danny M. Clark, M.D., Somerset (12th); and Jerry D. Fraim, M.D., Paintsville (14th).

Trustees in the 1st, 3rd, and 14th Districts are eligible for re-election, while Trustees in the 4th and 12th Districts have served two full terms and are **not** eligible for re-election.

Alternate Trustees in the 1st, 3rd, 12th, and 14th Districts are eligible for re-election; the Alternate Trustee in the 4th District is not eligible.

Nominating Committee to Meet Monday, September 22

The KMA Nominating Committee will hold an open meeting at the close of the first session of the House of Delegates, Monday, September 22, in the Julia Belle Room of the Bluegrass Convention Center.

Any KMA member may confer with the Committee during this meeting. Final recommendations of the Committee will be reported at the end of the first scientific session, Tuesday morning, September 23.

Nominations may be made from the floor during the second meeting of the House of Delegates, Wednesday evening, September 24. The House will vote on the nominees at the close of this session.

Members of the Committee are as follows: Thomas M. Marshall, M.D., Louisville, Chairman; James S. Brashear, M.D., Central City; James A. Baumgarten, M.D., Owensboro; Cecil D. Martin, M.D., Carrollton; and C. Kenneth Peters, M.D., Jeffersontown.

House to Elect New Officers During Annual Meeting

KMA Officers for the 1980-81 Associational year will be elected by the House of Delegates at the close of its final session, Wednesday evening, September 24. Officers to be elected from the state at large are as follows:

Office	Term
President-Elect	**One Year**
Vice President	**One Year**
Speaker, House of Delegates	**Three Years**
***Bennett L. Crowder, II, M.D.**	
Vice Speaker, House of Delegates	**Three Years**
***Peter C. Campbell, Jr., M.D.**	
Delegate to the AMA	**Two Years**
***Harold D. Haller, M.D.**	
Alternate Delegate	**Two Years**
***Kenneth P. Crawford, M.D.**	

***Incumbent**

The AMA Delegate and Alternate are to be elected for two-year terms from January 1, 1981, to December 31, 1982.



Bluegrass Convention Center **Ramada Inn**

Louisville, Kentucky

Annual Meeting Special Features

SCIENTIFIC SESSIONS are scheduled for September 23, 24, and 25 at the Ramada Inn/Bluegrass Convention Center, Louisville. The theme for the 1980 scientific session is "Uncommon Problems in the Human Life Cycle." Both the presentations and discussion periods will contribute to the continuing medical education of Kentucky's physicians.

TWENTY-ONE SPECIALTY GROUPS will hold meetings on the afternoon of September 23 and 25. Beginning at 1:30 p.m., the meetings will be held in Ramada Inn/Bluegrass Convention Center with the exception of the Kentucky Dermatological Society, which will meet at Norton-Children's Hospital, Louisville. Individual programs of the specialty societies are listed in this issue. No general sessions are scheduled during the specialty group meetings and all KMA members are invited to attend any specialty meetings.

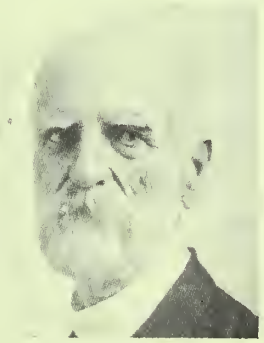
SCIENTIFIC AND TECHNICAL EXHIBITS will display new medical products, services, and techniques at the Bluegrass Convention Center during the 1980 Annual Meeting. Members and guests are urged to take the opportunity to view products of interest at the 30-minute intermissions scheduled during each general and specialty session.

THE KMA HOUSE OF DELEGATES will meet twice during the Annual Meeting. The first session of the House will be held at 9 a.m., Monday, September 24, in the Julia Belle room of the Ramada Inn/Bluegrass Convention Center. The final session will be held Wednesday, September 24, at 6 p.m., in the Julia Belle room also. Officers for the 1980-81 Associational year will be elected at the second session.

ALUMNI REUNIONS will be held again this year for nine classes of the University of Louisville School of Medicine. Information regarding these reunions may be obtained by contacting the chairman of the specific year or may be picked up at the alumni booth at the Annual Meeting.

THE PRESIDENT'S LUNCHEON will feature the President of the American Medical Association, Robert B. Hunter, M.D. Held at 11:30 a.m., Wednesday, September 24, in the Julia Belle room of the Bluegrass Convention Center. The Luncheon also will include the presentation of KMA awards and the installation of the 1980-81 KMA President, Frank R. Pitzer, M.D.

1980 Annual Meeting To Honor Past President Baily

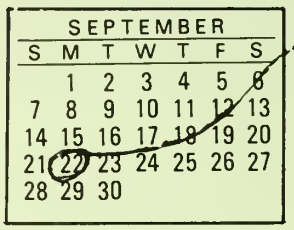


Doctor Bailey

The 1980 Annual Meeting of the Kentucky Medical Association will be officially titled "The William Bailey Memorial Meeting, in remembrance of the 1900 President of the Association.

The tradition of honoring a past president of KMA and other distinguished physicians originated at the 1935 Annual Meeting.

Eugene H. Conner, M.D., Louisville, KMA Historian, has written a biography on Doctor Barrow for the Annual Meeting program booklet to be distributed during the meeting in Louisville, September 22-25.



MARK YOUR CALENDAR NOW AND MAKE PLANS TO ATTEND THE 18TH ANNUAL KEMPAC SEMINAR -BANQUET

Senator Wendell H. Ford (D)
Mary Louise Foust (R)

The Democratic and Republican candidates for the U. S. Senate from Kentucky have been invited to speak to us.

TICKETS ARE ON SALE NOW! They can be purchased from the KEMPAC Headquarters Office at $15.00. Make check payable to KEMPAC and mail to: KEMPAC, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Monday, September 22, 1980

6:00 p.m. EDT—Reception
7:00 p.m.—Dinner with program to follow

Julia Belle Room
Ramada Inn
Bluegrass Convention Center
Louisville, KY.

18th KEMPAC Seminar-Banquet — $15.00 per person.

NAME _____

ADDRESS _____

CITY _____

AMOUNT ENCLOSED $ _____ # OF TICKETS _____

1980 Annual Meeting Program Summary

Kentucky Medical Association

September 21, 22, 23, 24 and 25

Bluegrass Convention Center/Ramada Inn

Louisville

SATURDAY, SEPTEMBER 20

6:00 p.m.	Dinner Meeting, KMA Executive Committee	Missippi Queen Room, Convention Center

SUNDAY, SEPTEMBER 21

9:00 a.m.	KMA Board of Trustees Meeting and Dinner (noon)	Mississippi Queen Room, Convention Center

MONDAY, SEPTEMBER 22

9:00 a.m.	First Meeting, KMA House of Delegates	Julia Belle Room, Convention Center
12:30 p.m.	Luncheon, Reference Committee Chairmen	Delta Queen Room, Convention Center
2:00 p.m.	Reference Committee Meetings	Cincinnati Room, Island Queen-Idlewild Rooms, Majestic-New Orleans Rooms, Grand Republic Room, Mississippi Queen Room, Natchez Room, Convention Center
6:00 p.m.	KEMPAC Reception, Banquet and Seminar	Julia Belle Room, Convention Center

TUESDAY, SEPTEMBER 23

8:00 a.m.	Registration	Lobby, Convention Center
8:20 a.m.	Opening Ceremonies	Scientific Assembly Hall, Convention Center
9:00 a.m.	First Scientific Session	Scientific Assembly Hall, Convention Center
12:00 noon	Luncheon, Meeting Executive Committee and Reference Committee Chairmen	Louisville Room, Ramada Inn
1:30 p.m.	Specialty Group Sessions, Convention Center (Eleven Specialty Groups will meet simultaneously at this time. Their programs begin on page 503)	
5:30 p.m.	Reception Honoring Frank R. Pitzer, M.D. and Mrs. John D. Noonan	Poolside, Ramada Inn

WEDNESDAY, SEPTEMBER 24

8:30 a.m.	Second Scientific Session	Scientific Assembly Hall, Convention Center
11:50 a.m.	President's Luncheon	Julia Belle Room, Convention Center
2:00 p.m.	Third Scientific Session	Scientific Assembly Hall, Convention Center
3:00 p.m.	Board of Trustees Meeting and Dinner (5 p.m.)	Mississippi Queen Room, Convention Center
6:00 p.m.	Second Meeting, KMA House of Delegates	Julia Bell Room, Convention Center

THURSDAY, SEPTEMBER 25

8:25 a.m.	Fourth Scientific Session	Scientific Assembly Hall, Convention Center
12:00 noon	Luncheon Meeting, Board of Trustees	Jeffersonian Room, Ramada Inn
1:30 p.m.	Specialty Group Sessions, Convention Center (Nine Specialty Groups will meet stimultaneously at this time. Their programs begin on page 508)	

A 30-minute intermission has been scheduled during each morning and afternoon Scientific Session for visiting Scientific and Technical Exhibits

Uncommon Problems in the Human Life Cycle



Four Scientific Sessions-KMA Annual Meeting, Sept. 23-25, 1980,
Bluegrass Convention Center, Louisville

The Kentucky Medical Association
SCIENTIFIC PROGRAM
William Bailey Memorial Meeting
Bluegrass Convention Center, Louisville

TUESDAY, SEPTEMBER 23

MORNING SESSION
General Session

Robert S. Howell, Louisville
KMA President, Presiding

Theme: "Birth, Infancy and Childhood"

8:30 a.m. Movie—"The Rape Examination"

9:00 a.m. "Fetal Monitoring's Effects on the Cesarean Section Rate"
Frank H. Boehm, M.D., Nashville, Tenn.

9:20 a.m. "Acute Bacterial Meningitis"
Jonathan Singer, M.D., Cincinnati, Ohio

9:40 a.m. "Drugs During Labor—Their Effects on the Newborn"
R. Bryan Roberts, M.D., Dayton, Ohio

10:00 a.m. Intermission to Visit Exhibits

10:30 a.m. "The Injured Child"
Judson G. Randolph, M.D., Washington, D.C.

10:50 a.m. "The Differential Diagnosis and Management of Head Injury in Childhood and Adolescence"
Thomas W. Langfitt, M.D., Philadelphia, Pa.

11:10 a.m. "New Findings on the Effects of Coitus During Pregnancy On Its Outcome"
Richard L. Naeye, M.D., Hershey, Pa.

11:30 a.m. "Advances in Hyalin Membrane Disease and Other Neonatal Respiratory Disorders"
Phillip Farrell, M.D., Madison, Wisc.

AFTERNOON SESSION
Specialty Group Meetings

(Specialty groups will have simultaneous scientific programs beginning at 1:30 p.m.. No General Sessions will be held at this time.)

Kentucky Society of Anesthesiologists

Natchez Room

1:30 p.m. "Anesthesia for Pediatric Neurosurgery"
Fredericka Godshalk, M.D., Lexington

2:00 p.m. "Anesthesia for Neonatal Surgical Emergencies"
Robert Spohr, M.D., Gainesville, Fla.

2:30 p.m. Intermission to Visit Exhibits

3:00 p.m. "Antacids: The Controversy Continues"
R. Bryan Roberts, M.D., Dayton, Ohio

4:00 p.m. Fall Business Meeting

FRANK H. BOEHM, M.D.
Nashville, Tennessee



Director of Fetel Intensive Cere Unit, Co-Director of Meternel/Fetel Medicine Division, Associete Professor of Obstetrics end Gynecology, Venderbilt University Hospitel, Neshville, Tenn. Associete Clinicel Professor, Obstetrics end Gynecology, Meherry Medicel College, Neshville, Tenn., M.D., 1965, Venderbilt University, Neshville, Tenn., Member, Americen Associetion of Gynecologicel Leperoscopists, Fellow, Americen College of Obstetriciens end Gynecologists; Neshville Acedemy of Medicine; Southern Perinetal Association, President Elect, 1980; Principle Investigetor, Middle Tennessee Obstetricel Regionelization Project; Editoriel Advisory Boerd, *Diagnostic Imaging;* consultent for *Obstetrics and Gynecology.*

JONATHAN I. SINGER, M.D.
Cincinnati, Ohio

Director of Emergency Depertment. Assistent Medicel Director of Ambuletory Services end Assistent Professor of Pedietrics, Cincinneti Children's Hospitel Medicel Center. Assistent Professor, Division of Emergency Medicine University of Cincinneti Medicel Center M.D., 1972, University of Cincinnati, Member of Cincinneti Pedietric Society; Fellow, Americen Academy of Pediatrics; Society of Teachers of Emergency Medicine; Athletic Teem Physicien, Roger Becon High School. Advisory Services, Cincinneti Drug and Poison Informetion Center; Acedemy of Medicine, Emergency Services Division.



ROBERT B. ROBERTS, M.D.
Dayton, Ohio



Professor and Chairmen, Department of Anesthesiology, Wright State University School of Medicine, Dayton, Ohio. Professor of Pharmacology, Wright State University School of Medicine. Consultant in Anesthesiology, Veteran's Administration Hospital, Deyton; Director of Reseerch and Educational Services, Miemi Valley Hospital Pein Unit. M.D., 1957, King's College Hospital Medical School, London, Englend. Member, Americen Society of Anesthesiologists; Americen Medicel Association; Internationel Anesthesie Research Society; Royal College of Surgeons of Englend; Ohio Society of Anesthesiology; Editoriel Board, *Anesthesiology.* Author of numerous scientific publicetions.

JUDSON G. RANDOLPH, M.D.
Washington, D.C.



Professor of Surgery, George Washington University, Washington, D.C. Surgeon in Chief, Children's Hospital National Medical Center. Professoriel Lecturer, Howerd University Medicel School, Washington, D.C. M.D., 1953, Venderbilt University School of Medicine, Member, District of Columbia Medical Society; Weshington Academy of Surgery; Society of University Surgeons; American Surgical Association; Board of Directors, American Board of Surgery, Senior member; Committee on Surgical Education in Medicel Schools, Americen College of Surgeons; Editorial Boerd, *Surgery and Pediatric Surgery.*

THOMAS W. LANGFITT, M.D.
Merion Station, Pennsylvania



Vice-president for Health Affeirs, University of Pennsylvania; Cherles Harrison Frazier Professor and Chairman, Division of Neurosurgery, University of Pennsylvania. M.D., 1953, John Hopkins University School of Medicine. Member, Association for Academic Health Centers, Board of Directors; American Surgicel Association; American Neurological Association; American Academy of Neurological Surgeons; Research Society of Neurological Surgeons; Netional Advisory Council, National Institute of Neurological end Communicative Disorders and Stroke; Chairmen, Editorial Boerd, *Journal of Neurosurgery.* Author of numerous scientific articles.

RICHARD L. NAEYE, M.D
Hershey, Pennsylvania



Professor of Pathology, University of Vermont College of Medicine, Burlington, Vermont; Chairman, Department of Pathology, Pennsylvanie State University College of Medicine, Hershey, Penn. M.D., 1955, Columbia University College of Physiciens and Surgeons, New York City, N.Y. Member, Americen Society for Experimental Pathology; International Acedemy of Pathology; American Association of Pathologists & Bacteriologists; Society of Pediatric Research; Pennsylvania Stete Medical Society; Perinatal Research Society; National Academy of Sciences, Committee on Epidemiology and Veteran's Follow-up; Editorial Board, *The Americen Journal of Pathology.*

PHILIP M. FARRELL, M.D.
Madison, Wisconsin



Associate Professor of Pediatrics, University of Wisconsin, Madison. M.D., 1970, Saint Louis University, St. Louis, Missouri. Chairman, Conferences Committee, Cystic Fibrosis Foundation; Reviewer, *Clinical Chemistry, The Journal of Clinical Investigation* and *Pediatric Research.* Member, Nutrition Task Force; Clinical Trials Review Panel, National Heart end Lung Institute; Nutrition Committee, Cystic Fibrosis Foundetion; Pediatric end Neonatology Section, Madison General Hospital; Research Committee, Cystic Fibrosis Foundation. Author of numerous scientific publications.

Kentucky Chapter
American College of Chest Physicians

Julia Belle Room

1:30 p.m. **"Cystic Fibrosis"**
Phillip Farrell, M.D., Madison, Wisc.

2:20 p.m. **"Advances in the Management of Cardiac Arrhythmias"**
Park Willis, M.D., East Lansing, Mich.

3:00 p.m. **Intermission to Visit Exhibits**

3:15 p.m. **"Advances in the Management of Pulmonary TB"**
"Diagnosis and Prevention"
N. K. Burki, M.D., Ph.D., Lexington
"Therapy"
Dennis J. McDonagh, M.D., Lexington

3:55 p.m. **"Management of Bronchopulmonary Fistulae"**
Marcus L. Dillon, M.D., Lexington

4:15 p.m. **"Management of Empyema"**
"Medical"—Steve Kraman, M.D., Lexington
"Surgical"—Norman Snow, M.D., Louisville

Kentucky Chapter
American College of Emergency Physicians

Eclipse Room

1:30 p.m. **"Childhood Gait Disturbance"**
Jonathan Singer, M.D., Cincinnati, Ohio

2:00 p.m. **"Management of Tricyclic Overdose"**
Lawrence Guzzardi, M.D., Lexington

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Emergency Department Nasotracheal Intubation"**
Daniel Danzl, M.D., Louisville

3:30 p.m. **"Radio Communications for the Emergency Physician"**
Steven Ackerman, M.D., Louisville

4:00 p.m. **Business Meeting**

Kentucky Neurosurgical Society

Delta Queen Room

1:30 p.m. **"Experiences with Anterior-Cervical Discectomy Without Fusion: A Comparison Study and Followup"**
John J. Guarnaschelli, M.D., Louisville
Andrievs Dzenitis, M.D., Louisville

1:45 p.m. **"Treatment of Vertebral Body Malignancy"**
Richard Jelsma, M.D., Louisville

2:00 p.m. **"Epidemiology of Head Injury"**
Thomas W. Langfitt, M.D., Philadelphia, PA
Rebecca Rimel, R.N., Charlottesville, Va.

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Outcome Assessments Following Head Trauma"**
Thomas W. Langfitt, M.D.
Rebecca Rimel, R.N.

3:15 p.m. **"Injury Factors Contributing to Post-Traumatic Epilepsy"**
Byron Young, M.D., Lexington

3:30 p.m. **"Computerized Axial Tomography of the Spine"**
John Rice, M.D., Louisville

3:45 p.m. **"Embolization of Arteriovenous Malformation of the Brain"**
Timir Banerjee, M.D., Louisville

Kentucky OB-GYN Society

Julia Belle Foyer

1:30 p.m. **"Management of Post Dates"**
Robert Shier, M.D., Lexington
2:00 p.m. **"Significance of Meconium"**
Pat Lavery, M.D., Louisville
2:00 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **Fetal Monitoring "An Overview"**
Frank H. Boehm, M.D., Nashville, Tenn.
3:45 p.m. **Panel Discussion**
4:00 p.m. **Business Meeting**

Kentucky Orthopaedic Society

Mississippi Queen Room

1:30 p.m. **"Surgical Release of Partial Epiphyseal Plate Arrests"**
James E. Carothers, M.D., Lexington
Thomas Brower, M.D., Lexington
1:45 p.m. **"Surgical Treatment of Kyphosis"**
Kenton D. Leatherman, M.D., Louisville
John Johnson, M.D., Louisville
2:00 p.m. **"Arthroscopic Surgery and the Posterior Horn"**
Norman V. Lewis, Jr., M.D., Louisville
2:15 p.m. **"The Kinematic Total Knee System: A Preliminary Report of 150 Cases"**
Robert W. Kleinhenz, M.D., Elizabethtown
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"The ICLH Total Hip Replacement: A Preliminary Report"**
Mark O. Gladstein, M.D., Louisville
3:15 p.m. **"Orthopaedists & Opinions—How Good Is Mine?"**
Paul J. Nichols, M.D., Lexington
3:30 p.m. **"Prevention of Athletic Injuries"**
Fred L. Allman, Jr., M.D., Atlanta, Ga.

Kentucky Society of Pathologists

Cincinnati Room

1:30 p.m. **"Pathophysiology of Sudden Infant Death Syndrome"**
Richard L. Naeye, M.D., Hershey, Pa.
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Pathologic Findings at Autopsy in Stillborn and Newborn Infants"**
Richard L. Naeye, M.D., Hershey, Pa.

Kentucky Chapter, American Academy of Pediatrics

Grand Republic Room

Program to be announced

Kentucky Society for Plastic and Reconstructive Surgery

Majestic-New Orleans Room

1:30 p.m. **"The Three R's of Subcutaneous Mastectomy: Rationale, Responsibility and Rehabilitation"**
David Connelley, M.D., Montgomery, Ala.
1:40 p.m. **"Subcutaneous Mastectomy"**
Andrew Moore, M.D., Lexington
1:48 p.m. **Discussion**
1:55 p.m. **"Myocutaneous Flap—General Usage"**
John W. Brogan, M.D., Erlanger

HENRY H. WORK, M.D.
Washington, D.C.

picture not available

Deputy Medical Director, Professionel Affeirs, American Psychiatric Association, Washington, D.C., Executive Secretary, Institutes on Hospitel and Community Psychietry, American Psychietric Association. Clinical Professor of Psychietry, Georgetown University and George Washington University. M.D., 1937. Harverd University School of Medicine, Boston, Mass. Member, Americen Orthopsychiatric Association, Life Fellow; Americen Academy of Pediatrics, Life Fellow; Americen Association on Mental Deficiency; Society of Professors of Child Psychietry, Chairmen; American Academy of Child Psychiatry, Chairman, Committee on Prevention. Author of numerous scientific publications.

FRED L. ALLMAN, JR., M.D.
Atlanta, Georgia

Founder of The Sports Medicine Clinic, Atlanta, Georgia. President, Americen College of Sports Medicine, 1968-69. Cheirman, Committee on Exercise end Physical Fitness, American Medical Association. Chairmen, Boerd of Trustees of the Sports Medicine Foundetion of America, 1972-79. Vice President, American Orthopaedic Society for Sports Medicine, 1979-80. Member, Medical Associetion of Georgia; American Medicel Associetion; Americen Board of Orthopaedic Surgeons; New York Acedemy of Science; American Orthopaedic Society for Sports Medicine; Consulting Editor of *The Physician and Sports Medicine*. Associate Editor of *Clinical Orthopaedics and Related Research*.



D. M. CONNOLLY, M.D.
Montgomery, Alabama



Private prectice of plastic surgery and surgery of the hand, Alabeme Plestic Surgery, P.A. M.D., 1954, Temple University School of Medicine, Philadelphia, Penn. Member, American Cancer Society, Onondaga Foundation for Medical Care, Board of Directors; Consultant, Reconstructive Surgery of Head and Neck, Nationel Cencer Institute; Plastic Surgery Society of New York, Vice President, 1973.

RUSSELL W. LAVENGOOD, M.D.
New York, New York

Acting Director, Urology Service, St. Luke's Hospitel, New York, New York; Clinicel Professor of Surgery, Cornell University Medical College; Clinical Professor of Urology, College of Physicians and Surgeons, Columbia University, Attending Surgeon, New York Hospital. M.D., 1951, University of Louisville School of Medicine. Member, New York State Medicel Society; New York County Medical Society; New York Clinicel Society; American Geriatric Society; The Royal Society of Health; American Fertility Society; Society of University Urologists; Nationel Kidney Foundation; American Medical Association. President, New York Section of the American Urological Association, 1974. Author of numerous scientific erticles.



PEYTON A. EGGLESTON, M.D.
Charlottesville, Virginia



Diractor, Treining Program in Allergy/Immunology, University of Virginie School of Medicine and Hospitel. Associete Professor, Pedietrics, University of Virginia School of Medicine. M.D., 1965, University of Virginia. American Acedemy of Allergy Trevel Grant Awerd 1972. Southeest Allergy Association Hel Devison Award, 1973. Member, Virginia Stata Madicel Society; President, Virginie Allergy Society; Fellow, American Acedemy of Pedietrics; Fellow, American Acedemy of Allargy; President-Elect, Southeest Allergy Association; Southern Society for Pedietric Research.

WILBUR L. SMITH, JR., M.D.
Indianapolis, Indiana

Associate Professor in Rediology end Pedietrics, Indiene University, Indianepolis, Indiana. M.D., 1969, Stete University of New York at Buffalo. Member, Rediologic Sociaty of North Americe; American College of Radiology; Indiana Stete Roentgen Sociaty; American Acedemy of Pedietrics, Fellow, 1976; American Medical Association; Indiene Stete Medicel Society; Society for Pedietric Radiology. Author of numerous scientific publicetions.



LAWRENCE M. SOLOMON, M.D.
Chicago, Illinois



Profassor of Darmatology and Heed of the Depertment, University of Illinois. M.D., 1959, Univarsity of Geneva, Switzerland. Chief Associate Editor for *Journal of Investigative Dermetology*. Member, Society for Dermetogenetics; American Federation for Clinical Research; Royel College of Physiciens end Surgeons; Americen Acedemy of Darmatology; Amarican Madical Associetion; Presidant, Internetional Society of Pediatric Dermetology; Chairman, Committae on Medical Exhibits, Museum of Scianca and Industry; President, Chicago Darmetologicel Society, 1977. Author of numarous scientific publications.

H. ARNOLD MULLER, M.D.
Hershey, Pennsylvania

Associete Professor of Medicine, Department of Medicine and Chief, Emergency Medicine Division, The Milton S. Hershey Medicel Canter, Hershey, Pe. Secretery of Health, Commonweelth of Pennsylvenie. M.D., 1955, Hervard Medicel School. Member, Deuphin County Medical Society; Pennsylvenie Medicel Society; Americen Medical Associetion; Chief, Section of Education, Americen College of Emergency Physicians; University Associetion for Emergency Medicine; Society of Teechers of Emergency Medicine, American Traume Society. Author of numerous scientific publicetions.



2:00 p.m. **"Splitting the Latissimus Dorsi Myocutaneous Flap"**
Gordon R. Tobin, M.D., Louisville

2:05 p.m. **"Local Hand Muscle Flaps for Coverage of Chemotherapeutic Ulcers"**
Phillip K. Blevins, M.D., Lexington

2:10 p.m. **Discussion**

2:15 p.m. **"Antibacterial Sensitivity Studies in Burn Patients"**
John C. Weeter, M.D., Louisville

2:20 p.m. **"Tangential Debridgement of Burns with Immediate Skin Graft"**
Larry Bundrick, M.D., Louisville

2:25 p.m. **Discussion**

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Nevi and Melanoma"**
J. Thomas Giannini, M.D., Louisville

3:10 p.m. **"Neonatal Choanal Atresia Revisited"**
Gerald D. Verdi, M.D., Louisville

3:15 p.m. **"Collagen Biosynthesis in Healing Spinal Cord Wounds"**
Gordon R. Tobin, M.D., Louisville

3:20 p.m. **Discussion**

3:25 p.m. **To be announced**

3:30 p.m. **"Subcuticular Closure vs. Skin Clips—Abdominal Lipectomy"**
Thomas W. Hagan, M.D., Louisville

3:35 p.m. **Discussion**

3:40 p.m. **"Saline Implant Update"**
Raleigh Archer, M.D., Lexington

3:45 p.m. **"Treatment of Bilateral Post Breast Augmentation Capsule Contractures"**
Edgar A. Lopez-Suescum, M.D., Louisville

3:50 p.m. **"An Apparatus for Closed Capsulotomy of the Breast"**
Louis M. Muldrow, Jr., M.D., Lexington

3:55 p.m. **Discussion**

Kentucky Chapter
American College of Surgeons

General Sessions Hall

1:30 p.m. **"Major Arterial Injuries in Children"**
J. David Richardson, M.D., Louisville

1:45 p.m. **"Selective Prognostic Variables in the Management of Breast Carcinoma"**
Kirby Bland, M.D., Louisville

2:00 p.m. **"Intestinal Strictures Following Necrotizing Enterocolitis"**
Joseph Janik, M.D., Louisville

2:15 p.m. **"Diagnostic and Therapeutic Bronchoscopy—Its Current Role in Pediatric Surgical Practice"**
Diller Groff, M.D., Louisville

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Tumors in Children"**
Judson G. Randolph, M.D., Washington, D.C.

3:30 p.m. **"The Injured Colon"**
Gary Vitale, M.D., Louisville

3:45 p.m. **"Systemic Prophylactic Antibiotics—Need the Cost Be High?"**
Donald Fry, M.D., Louisville

Kentucky Urological Association

Island Queen-Idlewild Rooms

1:30 p.m. **"The Treatment of Large Calculi of the Kidney"**
Russell W. Lavengood, Jr., M.D., New York, N.Y.

2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **IV Pyelogram Hour**
3:30 p.m. **Society Business Meeting**

WEDNESDAY, SEPTEMBER 24

MORNING SESSION

General Session

Richard J. Menke, Crestview Hills
KMA Vice-President, Presiding

Theme: **"Adolescence to Adulthood"**
8:30 a.m. **Movie—"Radiation Accident Patients"**
9:00 a.m. **"Drug Abuse in Adolescence"**
Henry H. Work, M.D., Washington, D.C.
9:20 a.m. **"Athletic Injuries Involving the Pre-Adolescent"**
Fred L. Allman, Jr., M.D., Atlanta, Ga.
9:40 a.m. **"Surgical Correction of Defects of the Thorax"**
David M. Connelly, M.D., Montgomery, Ala.
10:00 a.m. **Intermission to Visit Exhibits**
10:30 a.m. **"Non-Gonococcal Urethritis"**
Russell W. Lavengood, Jr., M.D., New York, N.Y.
10:50 a.m. **"Exercise-Induced Asthma"**
Peyton A. Eggleston, M.D., Charlottesville, Va.
11:10 a.m. **"Allergic Diseases of the Adolescent & Their X-Ray Manifestations"**
Wilbur L. Smith, M.D., Iowa City, Iowa
11:30 a.m. **"The Life-Limiting Role of Skin Disease in the Adolescent Patient"**
Lawrence M. Solomon, M.D., Chicago, Ill.

PRESIDENT'S LUNCHEON
Julia Belle Room
Bluegrass Convention Center
11:50 a.m.
Robert S. Howell, M.D., Louisville
KMA President, Presiding

Invocation
Recognition
Awards Presentation
S. Randolph Scheen M.D., Louisville
Chairman, KMA Awards Committee

Luncheon Speaker
Robert B. Hunter, M.D.
President
American Medical Association

Installation of the New KMA President

AFTERNOON SESSION

General Session

James A. Baumgarten, Owensboro
Chairman, KMA Scientific Program Committee, Presiding

2:15 p.m. **"Three-Mile Island—Revisited"**
H. Arnold Muller, M.D., Hershey, Pa.
3:00 p.m. **Intermission to Visit Exhibits**

T. S. DANOWSKI, M.D.
Pittsburgh, Pennsylvania



Director, Department of Medicine, Director, Institute of Graduate Medicine, Shedyside Hospital, Pittsburgh, Pennsylvenie. M.D., 1940, Yale University School of Medicine. Clinicel Professor of Medicine, University of Pittsburgh; Training Staff, St. Margaret's Memorial Hospital, Pittsburgh, Pennsylvania. Consulting and Courtesy Staff, Altoona Hospital, Altoona, Pennsylvania. Mambar, Fellow, American Association for the Advancement of Scianca. Amarican Cancer Society; Fallow, Amarican College of Physicians; Amarican Medical Association; British Diabetic Association; European Association for the Study of Diabatas; Naw York Academy of Sciances; Fallow, Royal Sociaty of Medicina; Editorial Board, ***Obasity and Bariatric Madicina;*** Editorial Board, *Clinical Pharmacology and Therapeutics.* Author of numerous scientific articles.

FRED B. CHARATAN, M.D.
New Hyde Park, New York

Chief of Psychiatry, Jewish Institute for Geriatric Care, New York. Attending Physician, Long Islend Jewish-Hillside Medical Centar, New York. M.D., 1943, St. Thomas's Hospital Medical School, London, England. Associate Professor, Clinical Psychiatry, School of Health Sciances, State University of New York, Stony Brook, New York. Chairman, 1971, Health Committea, Ragion II, Whita House Confaranca on Aging; Member, Nassau County Medical Society, Fellow, Nasseu Academy of Medicine, New York State Medical Sociaty; Fellow, Amarican Psychiatric Association; President, 1972, Nassau Psychiatric Society. Contributing Editor, 1968-73, *Tha Bullatin,* Naw York State Psychiatric Association.



CLARK W. HEATH, JR., M.D.
Decatur, Georgia



Director, Chronic Disaasas Division, Buraau of Epidamiology, Cantar for Disaasa Control, Atlanta, Gaorgia. Clinical Assistant Professor of Medicine and Clinical Assistant Profassor of Preventive Medicine, Emory University School of Madicina, Atlanta, Gaorgia. M.D., 1958, Johns Hopkins University School of Madicina, Baltimora, Md. Membar, American Association for the Advancamant of Scianca; Amarican Fadaration for Clinical Research; Amarican Public Haalth Association; National Sciantific Research Sociaty of America; Sociaty for Epidamiologic Rasearch. Author of numarous sciantific publications.

Theme: **"Middle Age"**
3:30 p.m. **"Management of Diabetes in the Middle Age Patient"**
T. S. Danowski, M.D., Pittsburgh, Pa.

DAVID S. GREER, M.D.
Fall River, Massachusetts



Chairmen, Section of Community Health; Professor of Community Health and Associete Dean of Medicine, Brown University, Providence, Rhode Island. M.D., 1953, University of Chicago School of Medicine. Medical Advisor, Fell River Housing Authority. Project Co-Director: Study of Independent Living (Fundad by HEW and HUD). Cheirman, Medical Advisory Committee, District Nursing Association of Fall River, Mass. Trustee, Southeastern Massachusetts University. Member, Stroke Committea of the Rhode Island Heart Association; Executive Committae of Faculty, Brown University; Chairman, Independent Living Authority, Stete of Rhode Island; Massachusetts Medical Society. Distinguished Service Awerd, University of Chicego Medical Alumni Association, 1973.

HENRY M. CLAYMAN, M.D.
North Miami Beach, Florida

Clinical Associate Professor of Ophthelmology, University of Miami, School of Medicine, Bescom Palmer Eye Institute. Clinical Professor of Health Sciences, Miami-Dade Community College. M.D., 1966, State University of New York, Downstate Medical Center, New York City, New York. Mambar, Internetional Intraocular Implant Club; Americen Intreocular Lens Society (Founding Member); Florida Ophthalmology Society; Floride Medical Association, Amarican Medical Association; Fallow, Americen Academy of Ophthelmology and Otolaryngology; Diplomate, Americen Boerd of Ophthalmology, 1974.



O. PETER SCHUMACHER, M.D., Ph.D.
Cleveland Heights, Ohio



Head of Section, Pedietric and Adolescent Endocrinology, Clevaland Clinic and Staff Member, Department of Endocrinology, Clevaland Clinic, Clevelend, Ohio. M.D. 1952, Johns Hopkins Universirty, Beltimore. Member, American Federetion for Clinicel Research; Fellow and Life Mamber, American College of Physiciens; Chairman, Ad Hoc Committee on Diabetes Affilietion, Diabetes Associetion of Greater Cleveland; American Diabetes Association; The Endocrine Society; The American Thyroid Association; Internetional Diabetes Federation; American Medical Association.

GENE D. COHEN, M.D.
Rockville, Maryland

Chief, Center for Studies of the Mental Heelth of the Aging, National Institute of Mentel Health, Rockville, Merylend. M.D., 1970, Georgetown University School of Medicine, Washington, D.C. Member, Reseerch Committee, Gerontologicel Society; American Psychiatric Association; Group for the Advencement of Psychietry; Washington Psychiatric Society. Consultant, Task Force on Aging, Americen Psychiatric Association; Clinicel Faculty, Georgetown University School of Medicine, Department of Psychiatry.



4:15 p.m. **"Rational Use of Psychotrophic Drugs in the Middle Age Patient"**
Fred Charatan, M.D., Stonybrook, N.Y.

THURSDAY, SEPTEMBER 25

MORNING SESSION

General Session

William T. Watkins, Somerset
Vice Chairman, KMA Board of Trustees, Presiding

Theme: **"The Aging Patient"**

8:25 a.m. **Movie—"The Clinical Significance of Coronary Artery Spasm"**

9:00 a.m. **"The White Cloud of the Bluegrass"**
C. W. Heath, M.D., Chamblee, Ga.

9:20 a.m. **"General Care of the Nursing Home Patient"**
David S. Greer, M.D., Providence, R.I.

9:40 a.m. **"What is Lens Implant Surgery and Why is it So Beneficial to the Elderly?**
Henry Clayman, M.D., Miami, Fla.

10:00 a.m. **Intermission to Visit Exhibits**

10:30 a.m. **"Diagnosis and Treatment of Hyperthyroidism"**
Peter Schumacher, M.D., Cleveland, Ohio

10:50 a.m. **"Clinical Issues in Geriatrics—at the Interface of Medicine and Psychiatry"**
Gene Cohen, M.D., Bethesda, Md.

11:10 a.m. **"Office Management of TB in the Elderly Patient"**
Lee B. Reichman, M.D., MPH, Newark, N.J.

11:30 a.m. **"Determination and Management of Neck Masses in the Elderly"**
Benjamin G. Wood, M.D., Cleveland, Ohio

AFTERNOON SESSION

Specialty Group Meetings

(Simultaneous scientific programs of specialty groups will be held at 1:30 p.m. All KMA members are invited and no general sessions will be held this afternoon.)

Kentucky Society of Allergy and Clinical Immunology

Eclipse Room

1:30 p.m. **"Exercise-Induced Asthma: Update on Mechanisms and Treatment"**
Peyton A. Eggleston, M.D., Charlottesville, Va.

2:15 p.m. **Intermission to Visit Exhibits**

2:45 p.m. **"Allergic and Non-allergic Rhinitis—Diagnostic and Treatment Considerations"**
John S. Hill, M.D., Lexington

3:15 p.m. **Panel Discussion on "Insect Venom Immunotherapy"**
Peyton A. Eggleston, M.D. and members of the Kentucky Society of Allergy and Clinical Immunology

4:00 p.m. **Business Meeting**

Kentucky Dermatological Society

Norton-Children's Hospital

2:00 p.m. **Clinical Cases**

3:30 p.m. **Discussion of Cases—Auditorium**

Kentucky ENT Society

Cincinnati Room

1:30 p.m. **"Subtotal Vertical Laryngectomy with Epilottic Laryngoplasty"**
Benjamin G. Wood, M.D., Cleveland, Ohio

2:15 p.m. **"Reconstruction Approaches in the Elderly"**
Gerald D. Verdi, M.D., Louisville
3:00 p.m. **Intermission to Visit Exhibits**
3:30 p.m. **"Uses of Amplification Devices"**
Irving Silverman, Ph.D., Louisville

Kentucky Academy of Eye Physicians and Surgeons

Majestic Room

1:30 p.m. **"Current Techniques of Intraocular Lens Implantation"**
Henry Clayman, M.D., Miami, Fla.
2:15 p.m. **"Update on Treatment of Herpes Simplex Keratitis"**
Richard A. Eiferman, M.D., Louisville
2:30 p.m. **"Xenon Arc Photocoagulation of Diabetic Retinopathy"**
James Shafer, M.D., Lexington
2:45 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Clinical Applications of ERG"**
Donald R. Bergsma, M.D., Lexington
3:15 p.m. **"Uses and Abuses of Extended Wear Contact Lenses"**
Bruce H. Koffler, M.D., Lexington
3:30 p.m. **"Complications of Lens Implants"**
Henry Clayman, M.D., Miami, Fla.
4:15 p.m. **Business Meeting**

Kentucky Chapter American Academy of Family Physicians

Mississippi Queen Room

1:30 p.m. **"Concepts of Disease in the Elderly"**
James Redmon, M.D., Louisville
2:00 p.m. **"Liver Function in the Elderly"**
Cary Vinson, M.D., Lexington
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Pattern and Presentation of Disease in the Elderly"**
Donald Zedalis, M.D., Madisonville
3:30 p.m. **"Uses of Medications in Elderly Patients"**
James Schneider, M.D., Covington

Kentucky Occupational Medical Association

Island Queen Room

1:30 p.m. **"CDC's (Center for Disease Control) Role in Environmental Medicine"**
C. W. Heath, M.D., Chamblee, Ga.

Kentucky Chapter American College of Physicians

Julia Belle Room

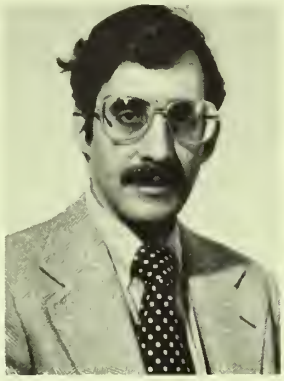
Program to be Announced

Kentucky Psychiatric Association

Grand Republic Room

1:30 p.m. **"Clinical Issues in Geriatrics—at the Interface of Medicine and Psychiatry"**
Gene Cohen, M.D., Bethesda, Md.
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Lesser Neurologic Problems of the Aging Patient"**
David Clark, M.D., Ph.D., Lexington
3:30 p.m. **Business Meeting**

LEE B. REICHMAN, M.D.
Newark, New Jersey



Professor of Medicine, Director Pulmonary Division, College of Medicine and Dentistry of New Jersey, Trenton. M.D., 1964, New York University School of Medicine. Assistant to the Chairman for Inter-Departmental Affairs, Department of Medicina, Naw Jersey Medical School. Membar, New York Academy of Science; Amarican Thoracic Society Sciantific Assembly on Tuberculosis; New York Trudeau Society; Fellow, Amarican College of Physicians; Fallow, Academy of Medicina of New Jersey. Editor-in-chiaf, Intarnational Respiratory Disease Reporter, 1976-79. Board of Trustees, The Gar Reichmans Foundation; Board of Diractors, American Lung Association of Naw Jersey.

BENJAMIN G. WOOD, M.D.
Cleveland, Ohio

Staff membar, Clavaland Clinic Foundation, Department of Otolaryngology and Communicative Disorders. M.D., 1968, Univarsity of Alberta, Edmonton, Alberta, Canada. Mamber, American Adadamy of Ophthalmology and Otolaryngology; American Medical Association; American Collaga of Surgeons; Northaastarn Ohio Otolaryngology and Maxiofacial Surgery Society; Northarn Ohio Pediatric Society; Ohio State Medical Association; Cleveland Academy of Madicina.



Kentucky Association of Public Health Physicians

Natchez Room

1:30 p.m. **Tuberculosis Case Presentation**
Lee B. Reichman, M.D., M.P.H., Newark, N.J.
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **Business Meeting**

REGISTRATION INFORMATION

A registration booth will be located in the lobby of the Ramada Inn/Bluegrass Convention Center throughout the Annual Meeting. The booth will be open at 8 a.m., Tuesday, Wednesday, and Thursday, September 23-25.

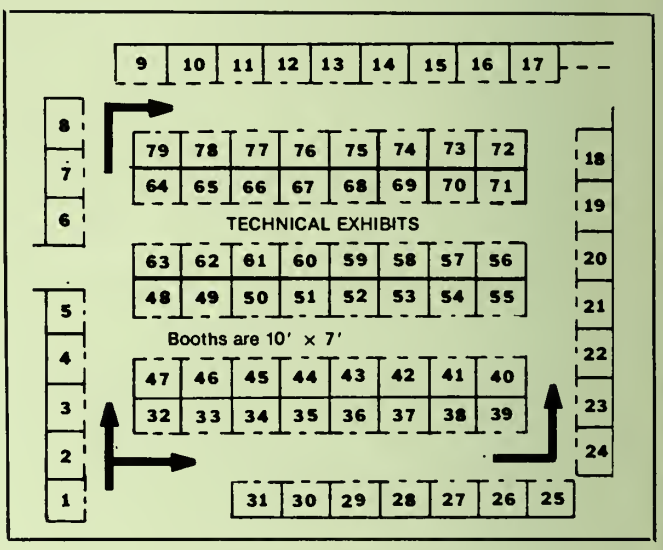
Please register and wear your badge at all times while attending the meeting.

Latest Research Advances in Products and Services Offered by 1980 Technical Exhibits

The Technical Exhibits at the 1980 KMA Annual Meeting will feature the latest developments in medical techniques and information. Located in the Bluegrass Convention Center, the exhibits will condense a volume of information and ideas in such a manner that a vast amount of knowledge can be secured in a short period of time.

Prepared carefully and skillfully to appeal to you, the physician, the exhibits are especially geared to your special interests as a practitioner. Medical representatives and other exhibitors will be on hand to discuss personally their products and services with you. Both you and your patients should benefit from the information that can be gained from a visit to the Technical Exhibits.

Thirty-minute intermissions have been planned during each general and specialty group session so that every physician may take advantage of this excellent opportunity provided by the exhibits.



Floor Plan of Technical Exhibits

1980 Technical Exhibitors

Abbott Laboratories (33)
Adria-Warran-Taed Lab. (43)
Ambulatory Services of Kantucky (75)
Armour Pharmacautical Company (66)

Barlax Laboratories, Inc. (48)
Blue Cross & Blua Shield and Dalta Dantal of Kantucky, Inc. (21)
Boots Pharmaceuticals, Inc. (51)
Bristol Laboratorias (7)
Burroughs Wallcome Co. (18)

The Central Pharmacal Company (73)
Compu-Dat, Inc. (8)

Damon's Louisvilla Medical Laboratory (52)
Datamax Computar Corporation (59)
Dictaphona Corporation (3)
Division for Disability Datarminations (45)
Dolbay and Company (79)
Dow Chemical U.S.A. (Pharmacautical Division) (46)

Encyclopaadia Britannica (25)

Frame Housa Gallery (62)

Geigy Pharmaceuticals (15)
General Medical Company (19)
Garbar Products Company (16)
Glaxo Inc. (44)
Grogan's Inc. (53)
Guild of Prascription Opticians of Kentucky (50)

John Hancock Mutual Lifa Insurance (2)

Hoachst-Roussel Pharmaceuticals, Inc. (20)
Homa Braathing Cara (70)
Hospital Corporation of Amarica (68)
Humana Inc. (54)

Insuranca Corporation of Amarica (78)
Intarnational Medical Electronics, Ltd. (69)
Ives Laboratories, Inc. (28)

Keep/Safe of Kantucky (49)
Kentucky Madical Insuranca Company (14)
Kremars-Urban Company (58)

Laboratory Supply Co., Inc. (76)
The Lang Company (26)
Ladarla Laboratories (32)
A. P. Lea Agancy, Inc. (35)
Eli Lilly and Company (39)
Lundia Burton Salas Co., Inc. (42)

McNeil Laboratorias (29)
Maad Johnson Nutritional Division (31)
Maad Johnson Pharmaceutical Division (71)
The Madical Protectiva Company (6)
Merck Sharp & Dohma (36)
Marrill Lynch Pierca Fanner & Smith, Inc. (41)
Metropolitan Lifa-Medicare Office (13)
Milex Products, Inc. (77)

Ortho Pharmaceutical Corporation (1)

Pathology and Cytology Laboratorias, Inc. (37)

Pfizar Labs (34)
William P. Poythrass & Company, Inc. (4)
Professional Accounting Systams (38)
Profassional Insuranca Marketers (27)
Profassional Office Systems, Inc. (74)

Q.S.I., Inc. (12)

Ransdell Surgical (23)
Raad & Carnrick Pharmaceuticals (61)
A. H. Robins Company (55)
Roche Laboratories (40)
William H. Rorer, Inc. (72)
Ross Laboratories (5)

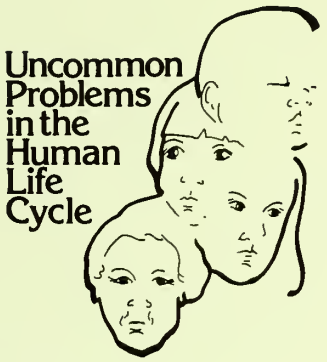
Sandoz Pharmaceuticals (17)
W. B. Saundars Company (9)
Clayton L. Scroggins Associatas, Inc. (22)
Smith Kline & Franch Labs (63)
South Cantral Bell (67)
E. R. Squibb & Sons, Inc. (47)
Stuart Pharmaceuticals (24)

Tab Products Co. (60)

Underwriters Safety & Claims, Inc. (57)
USAF Haalth Profassions (10)
U. S. Army Medical Departmant (65)
Tha Upjohn Company (64)

Wallace Laboratories (11)
Wyeth Laboratories (56)

Zimmar—USA (30)



Plan to attend the following films which will be shown before each General Session in the General Sessions Hall.

Tuesday	
8:20 a.m.	"The Rape Examination"
Wednesday	
8:30 a.m.	"Radiation Accident Patients"
Thursday	
8:25 a.m.	"The Clinical Significance of Coronary Artery Spasm"

MAKE YOUR RESERVATIONS NOW

It is important that you begin to make your room reservations as soon as possible for the KMA Annual Meeting, September 22-25. The Ramada Inn/Bluegrass Convention Center at I-64 and Hurstborne Lane will be the Headquarters Hotel. However, there are several other accommodations within easy reach of Ramada Inn and the Bluegrass Convention Center. In making your reservations, remember the first House of Delegates meeting will be Monday, September 22.

Librium®
chlordiazepoxide HCl/Roche



5 mg, 10 mg, 25 mg capsules

- ☐ Proven antianxiety performance
- ☐ An unsurpassed safety record
- ☐ Predictable patient response
- ☐ Minimal effect on mental acuity at recommended doses
- ☐ Minimal interference with many primary medications, such as antacids, anticholinergics, diuretics, cardiac glycosides and antihypertensive agents

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

synonymous with relief of anxiety

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701

Please see following page.

Librium®C
chlordiazepoxide HCl/Roche
5 mg, 10 mg, 25 mg capsules



ROCHE

synonymous with relief of anxiety

Please see preceding page for a summary of product information

Pediatric Adolescent Gynecology

Clinical Approach to the Choice of Antimicrobial Therapy, Case #20: Fever in Pregnancy

Recurrent Electrocardiographic Abnormalities

September 1980
Volume 78
Number 9

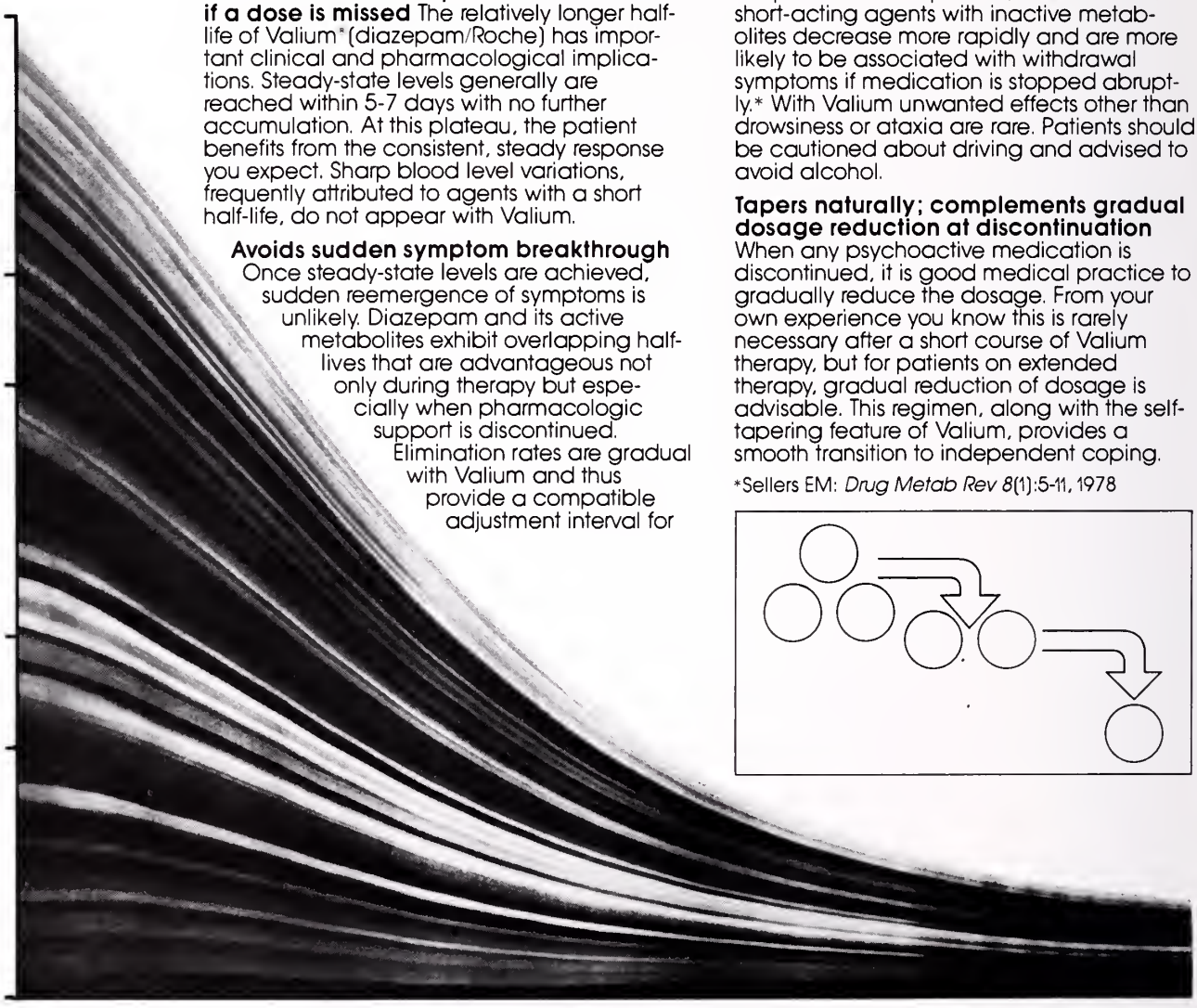
LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
OCT - 9 1980

The Journal Of The Kentucky Medical Association

Physicians of Phil.
19 South 22nd St.
Philadelphia, PA 19103

half-life

Just one built-in advantage



Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

in the management of symptoms of anxiety

Valium®(IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

ROCHE®

Valium®IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

It's smarter to
LEASE
cars, trucks and equipment
NO CASH NEEDED
Let us tell you why and how.
General LEASING
121 Bauer Ave., Louisville 40207
(502) 896-0383

MAKE YOUR RESERVATIONS NOW

It is important that you begin to make your room reservations as soon as possible for the KMA Annual Meeting, September 22-25. The Ramada Inn/Bluegrass Convention Center at I-64 and Hurstbourne Lane will be the Headquarters Hotel, however, there are several other accommodations within easy reach of Ramada Inn and the Bluegrass Convention Center. In making your reservations, remember the first House of Delegates meeting will be Monday, September 22.

Postgraduate Opportunities

SEPTEMBER

3-4 Hypertension, 1980, Hyatt Regency, Louisville
4-6 Gynecologic Surgery, Hyatt Regency, Louisville
8 Griswold Lecture, Health Sciences Center, Louisville
15 1980 John 1. Perlstein Lecturer, Health Sciences Center, Louisville
22-25 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

1-2 8th Annual Fall Pediatric Surgery—Pediatrics Symposium, Indianapolis Hilton Hotel
1-4 American Assoc. for Cancer Education, Hyatt Regency, Louisville
10 Critical Care Symposium, Jewish Hospital, Louisville
24-26 Hypnosis in Medicine, Ramada Inn-Bluegrass, Louisville**
27-29 Mid-American College Health Assoc., Hyatt Regency, Louisville
29 Louisville Pediatric Society Lectureship, Health Sciences Center, Louisville
30-31 14th Annual Newborn Symposium, Health Sciences Center, Louisville

NOVEMBER

1-2 KAFP Fall Seminar, Hyatt Regency, Louisville
2-6 Images of Old Age, Smithsonian Exhibit, Health Sciences Center, Louisville**
11-12 Gynecologic Surgery, Endocrinology and Infertility, Executive Inn, Louisville
13 Diabetes in the Elderly, Health Sciences Center, Louisville**
18 Cancer Symposium, Highlands Baptist, Louisville
20 Consequences of Stress, Health Sciences Center, Louisville**

DECEMBER

5-6 Nephrology and Urology Seminar, Hyatt Regency, Louisville**
10-12 Neurology for the Non-Neurologist, Sheraton Plaza Hotel, Chicago, Illinois

**For further inmformation contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161*

Computerizing Your Hospital Cancer Registry
October 6-7, 1980 8:30 a.m. to 5:00 p.m.
Norton-Children's Hospital Inc., Louisville
Fee $150 includes text and notebook.

For more information contact:

Ms. Joyce Wright, Cancer Registrar, Norton-Children's Hospital, Inc., P.O. Box 35070, Louisville, 40232, (502) 589-8211

4th Annual Leukemia Symposium
Interferon, Immune Resposes and Leukemia
Tuesday, September 30, 1980
Executive Inn, Louisville, KY
Featuring two researchers and two clinicians
Sponsored by Kentucky Chapter, Leukemia Society of America, Department of Microbiology & Immunology
University of Louisville School of Medicine, Louisville, KY
4.0 CME Category I Credits

Volume 78 • September 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

SCIENTIFIC ARTICLES

Pediatric Adolescent Gynecology
Joseph S. Sanfilippo, M.D. 525

Clinical Approach to the Choice of Antimicrobial Therapy, Case #20, Part A: Fever in Pregnancy
David B. Waterfill, M.D., William C. Templeton, M.D., Martin J. Raff, M.D., and Julio C. Melo, M.D. 531

Recurrent Electrocardiographic Abnormalities Associated With Recurrent Pancreatitis
James E. Nutt, M.D., Gurbachan S. Sohi, M.D. and Nancy C. Flowers, M.D. 535

Surgical and Vocal Rehabilitation of Laryngeal Trauma (Grand Rounds)
Barbara M. Baker, Ph.D., and Gorden T. McMurry, M.D. 543

SPECIAL ARTICLE

Community Project in Pediatrics: An Effort to Influence Physician Distribution 551

EDITORIAL

Letter to the Editor 555

ASSOCIATIONAL NEWS

Scientific Sessions Will Highlight 1980 KMA Annual Meeting ... 567
Booklet Answers Patient's Questions on Health Insurance 567
Reference Committee Activity 568
Actions of AMA House of Delegates 573
Requirements for Reporting Child Abuse 576
KMA Physician Recruitment Fair is Scheduled for October 4 580

REGULAR FEATURES

Postgraduate Page 518
President's Page 523
Manuscript Information 534
Maternal Mortality 557
Book Reviews 563
Cost Consciousness 567
Members in the News 576
Headquarters Activity 579

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscriptions $15
(Members $7.50)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

Issued Monthly Under the Direction of the Board of Trustees

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **ASSOCIATE EXECUTIVE EDITOR**
Joseph A. Witherington, Jr.

• **MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

BOARD OF TRUSTEES—1979-1980

Officers

President ..... ROBERT S. HOWELL
217 East Chestnut Street, Louisville 40202—502/587-1454 1980

President-Elect ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1980

Immediate Past President ..... CARL COOPER, JR.
Bedford 40006—502/255-3282 1980

Vice President ..... RICHARD J. MENKE
210 Thomas More Parkway, Crestview Hills 41017—606/341-9300 1980

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/885-0124 1980

Vice Speaker, House of Delegates . PETER C. CAMPBELL, JR.
Suite 400—224 East Broadway, Louisville 40202—502/583-9749 1980

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P.O. Box 406, Berea 40403—606/986-8452 1980

Vice Chairman ..... WILLIAM T. WATKINS
401 Bogle Street, Somerset 42501—606/678-8155 1980

Delegates to the AMA

DAVID B. STEVENS, 1900 Richmond Road, Lexington 40502—606/278-3481 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1980
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1980

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1980
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1980
4th ..... CHARLES B. SPALDING, 201 South Fifth Street, Bardstown 40004—502/348-5968 1980
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41011—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... WILLIAM T. WATKINS, 401 Bogle Street, Somerset 42501—606/678-8155 1980
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... HARVEY A. PAGE, Pikeville Medical Building, Pikeville 41501—606/432-2872 1980
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

SEPTEMBER BUYERS GUIDE FOR JOURNAL OF KMA

Blue Cross & Blue Shield of Kentucky 524
Boots Pharmaceuticals 547, 548, 549, 550
Burroughs Wellcome Co. 566, 579
Classified Column 578
General Leasing Corporation 517
Good Samaritan Hospital 541
Insurance Corporation of America 554
Kentucky Medical Insurance Corporation 565
A.P. Lee Agency 556
Eli Lilly & Company 569
Medical Protective Company 570
Merrell-National 558, 559, 580, 581
Roche Laboratories 516, 517, 560, 561, 562, 563, 564
South Central Bell 542
Wyeth Laboratories 521, 522, 570, 571



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® ℂ

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summery

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobemete, chlordiazepoxide, and diazepam) during the first trimester of pregnency has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a women of child-bearing potential may be pregnent at the time of institution of therapy should be considered. Patients should be advised that if they become pregnent during therapy or intend to become pregnent they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental berrier. It is present both in umbilical-cord blood at or neer maternel plasma levels and in breast milk of lacteting mothers at concentretions two to four times that of meternal plasma. When use of meprobemete is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE. Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101

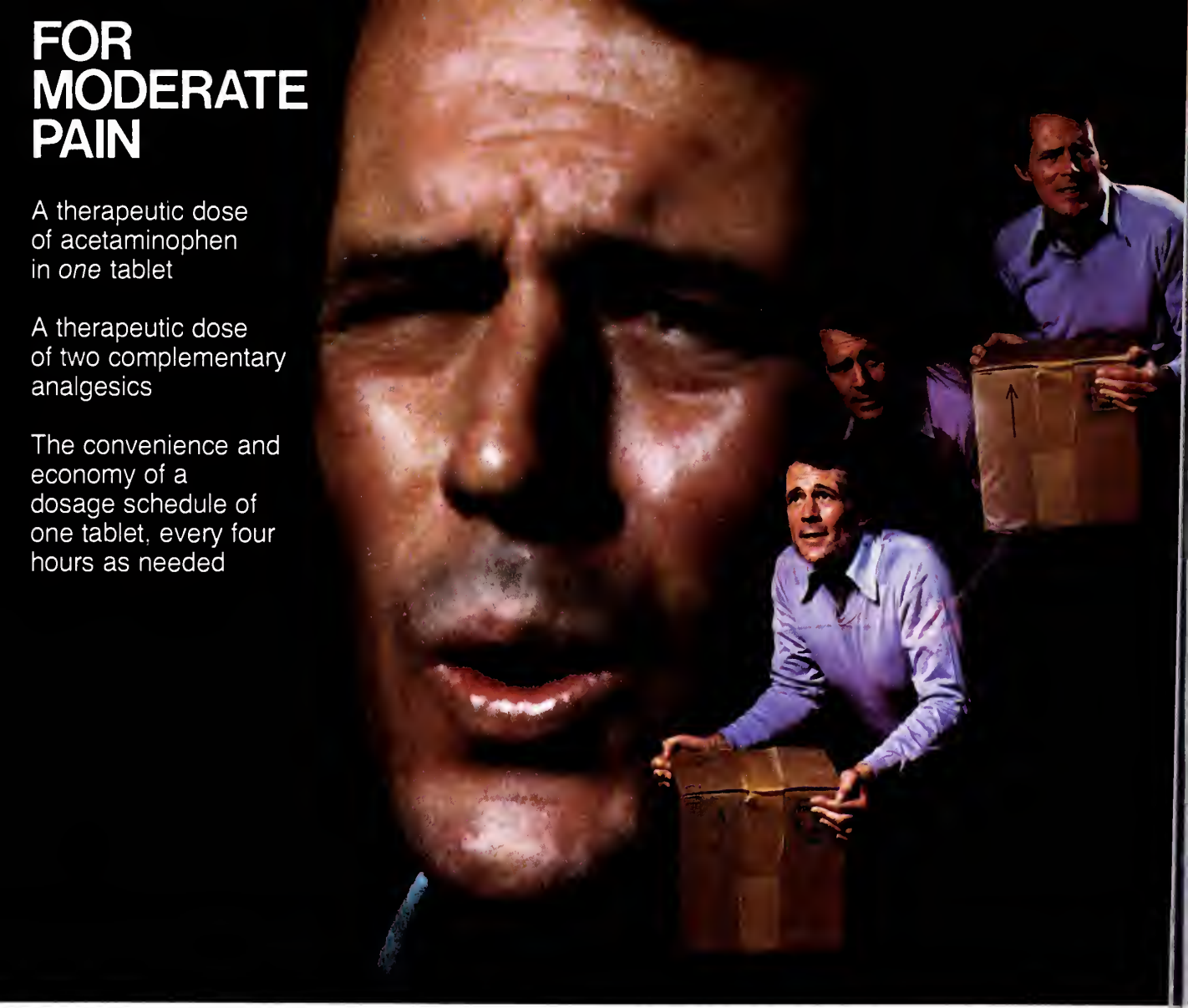
1M

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® ℂ℣

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbrevieted Summery

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Menegement of Overdosege**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions mey be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, tight-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per dey has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants hes an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In eddition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, end apnea. cardiac arrest, and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation delects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatoloxicity A 13-gram dose has reportedly been fatal.

TREATMENT: Primary ettention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and hall-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended

Copyright © 1980, Wyeth Laboratories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa 19101



PRESIDENT'S PAGE

THIS has been an exciting year for me. During my travels throughout the state, I have been tremendously impressed with my Kentucky colleagues and their initiative and interest. Because of this participation, the Kentucky Medical Association is an efficient, alert body sensitive to the needs of Kentucky physicians.

In this associational year, I have initiated a membership and public education program with which most of you are familiar. I strongly urge that this be continued. We are seeing a positive response. At the Kentucky Medical Association office, we currently have requests from corporations throughout the state for an exchange of ideas in health care and for help in some specific medical areas. Corporations are the largest purchasers of health care in the state, and we should be particularly pleased with this growing confidence in our organization. Other communicative efforts will soon be apparent to the membership through the "Communicator" and *The Journal.* A special report of Kentucky Medical Association activities will be distributed to the membership at the annual meeting.

The formation of the Speakers Bureau is well underway, and we have many exceptional volunteers. A speaking seminar is planned in early November to review speaking techniques in order that we may be more effective.

The initial statement of the purpose of the federation of medicine is to promote the science and art of medicine and the betterment of the public health. The Kentucky Medical Association, as an integral part of the federation, should be the leading advocate of health measures to insure public safety. I am particularly concerned with environmental pollution. Little has been done from a legislative standpoint to improve air quality in our urban areas. Certainly, the abuse of rural land and toxic waste disposal makes headlines daily. The public needs our imput, and we must become more active in our demands upon those who have legal authority to act in these matters. I have hopes that much of the public's information will come from members of the Kentucky Medical Association through our Speakers Bureau. We should advocate just as strongly the public's responsibility to develop good health habits, and this depends on the dissemination of good sound health information through this source.

There are always things that an out-going president wishes that he had said, done, or emphasized, and I am no exception. Nevertheless, I have been pleased with the membership's response throughout the year. We have a superb staff at the Kentucky Medical Association and the envy of most state organizations. I am most grateful for their help.

Thank you for the honor of allowing me to serve this year.

ROBERT S. HOWELL, M.D.
KMA PRESIDENT

Blue Cross
Blue Shield
Delta Dental
of Kentucky



Before you crack...

learn to handle stress.

Unless you cut yourself off totally from all stimuli, you can't go through life without some stress. And you wouldn't want to. Stress helps us meet life's challenges and deal with problems.

But too much stress, or chronic over-stress, can lead to serious health problems like high blood pressure, ulcers and other diseases. Left uncontrolled, it could even lead to heart disease.

Since you can't avoid all stress, learn how to control it. One of the best ways is simply to set aside some time everyday to "do your own thing." Meditate, pursue a quiet hobby, go for a walk, or just relax. Learning to relax is learning to handle stress.

You'll be healthier and happier in the long run. And staying healthy is the best kind of health care—and the least expensive. At Blue Cross and Blue Shield and Delta Dental of Kentucky we're concerned about rising health care costs.

Write us for information on enrolling in quality health care prepayment plans. Blue Cross and Blue Shield and Delta Dental of Kentucky, 9901 Linn Station Road, Louisville, KY 40223.

®Reg. Mark Blue Cross Assn. • ®Reg. Mark Blue Shield Assn. • ™Delta Dental Plans Association

The Journal Of The Kentucky Medical Association
September 1980 Volume 78 Number 9

Pediatric Adolescent Gynecology

JOSEPH S. SANFILIPPO, M.D.

Pediatric adolescent gynecology encompasses the social, medical, surgical and legal aspects of this age group. The problems are different from those of adults and require special attention.

History

In the pediatric age group, the parent(s) or guardian provides the history; in the adolescent sector, it is of extreme importance to allow the teenager to participate in eliciting the history. Parent initiated visits often revolve around abnormal vaginal bleeding or discharge, dysmenorrhea, abdominal pain, or developmental abnormalities. The teenager may request help in light of suspected venereal disease, pregnancy, or desire for contraception. It is becoming clear that the first pelvic exam influences a females attitude and rapport with her physician or health professional perhaps for life. Most adolescents as well as adults respond to health care providers who are genuinely concerned and explain procedures as they are performed. It is essential that the pediatric or adolescent patient and physician develop a good system of communication and are able to relate to each other.

One must first deal with the chief complaint (c.c.) We must play the role of detective and determine if the c.c. is the tip of an iceberg and conceals a deep-seated concern. The young woman who complains of irregular periods or dysmenorrhea may wish to discuss methods of birth control. Emphasis must be placed on the confidentiality of the doctor-patient relationship! If there is no voluntary request for contraception, inquiry must be made as to the contraceptive needs of the teenager. This is an effort to educate her regarding sexual function and is designed to prevent problems in sexually active teenagers. Adolescents should be asked if they have ever tried to use tampons. Many have been unable to insert them. This point of concern may be employed to elicit a history of sexual concerns as well as instructions in pelvic anatomy and physiology.[1]

The sexual history is an integral part of the information that must be obtained. The adolescent's needs or expectations and behavior in

From the Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, University of Louisville, Louisville, KY

a sexual role must be elicited. Masturbation or homosexual experience should be inquired about. The physician should not be authoritarian and obtain this information without the presence of a nurse, chaperone, or patient. Non-verbal communication is also important. "An earth-shattering expression or sudden recoil on the part of a physician" has the same impact on a teenager as a verbal message.[1] The physician should rely on memory rather than on taking notes during this portion of the interview. Communication with the adolescent in language she understands in extremely important. Inquiry regarding prenatal, childhood development and in utero diethylstilbestrol (DES) exposure should be made as well as pubertal development sequence.

The Physical Examination

This should be performed with only a nurse or chaperone present in the case of the adolescent, and parent for the pediatric patient. Frequently a hand mirror is helpful in instructing the individual about her genitalia. Height and weight should always be recorded, as well as arm span, upper and lower segments and chest circumference. Blood pressure should be taken and be recorded with patient positioning. Dental hygiene, thyroid abnormalities, and evaluation for lymphadenopathy are all integral parts of the physical exam of the adolescent. Careful exam of the breasts is imperative, and this serves as a prime opportunity for instruction in the breast self-exam. The physician must convey to the patient that the gynecologic exam can be atraumatic and without discomfort.[1]

Pelvic Exam

Most adolescents can tolerate a nasal speculum or even a Pederson speculum inserted into the vagina. If the teenager uses tampons, she should be informed that a thin-bladed speculum is no larger than a junior tampon. A "show and tell" concept should be emphasized. Relaxation and rapport during the examination will decrease pain and discomfort. Inspection of the perineum is the first step in beginning the exam. Any vulvar lesions should be noted and biopsied. The speculum should be warmed, and appropriate cultures obtained prior to bimanual examination. Frequently an eyedropper and ENT speculum are very helpful. The adolescent should not be used for teaching pelvic exams. Care must be taken when examining the adolescent to avoid using words such as "very small," "very large" or "infantile."[1]

Post Examination Discussion

Discussion about the findings of the examination should be carried out with the adolescent. She must be given the opportunity to privately discuss sexual concerns. (The discussion of findings should be with the parent-in the pediatric patient.) "A non-sexual complaint, such as vaginitis or irregular menses may really be a request for permission to talk about sexual concerns. Appropriate reading material may be suggested."[1] If the individual has evidence of venereal disease, the physician must allow the channels of communication to be open and assist the patient in informing parents and perhaps male partners. If pregnancy is diagnosed the physician should present alternatives in an unbiased manner. The state of Kentucky supports rights of minors to privacy and treatment of venereal disease, contraception, and delivery without parental consent.[2]

Specific Problems Encountered in Gynecologic Practice

Premenarchal Vulvovaginitis

Girls two to seven years of age are commonly seen in the pediatric gynecology clinic. Vulvovaginitis represents 87% of the genital disorders of this age group.[3] Vulvovaginitis in the premenarchal child may be caused by bacteria, protozoans, mycotic, viral, physical or chemically allergenic agents such as perfumed bubble bath. History regarding vulvovaginitis should include vaginal, penile discharge or genital pruritus in any member of the family. This may reflect a venereal disease which may be acquired from bedding, towels or toilet seats. Foreign bodies produce a

blood-tinged, foul smelling discharge. Candida albicans produces a curd-like, grayish-white discharge and trichomonas vaginitis a yellowish frothy discharge. Herpetic vulvitis is diagnosed by the vulvar lesion which is erythematous, maculopapular with fluid-containing structures. Intractable or recurrent vulvovaginitis may be related to pinworms. The worm migrates from the rectum to the vagina carrying coliform bacteria with it.[4] Sandbox vulvitis is a common problem during the summer months. Sand creeps into the folds between the labia and vagina. It is irritating and causes a foreign-body reaction.

Points pertinent to the physical examination with vulvovaginitis include inspection of the perineal skin, anus, vulva, urethral meatus, vulvar integument and hymen. Frequent use of the frog-legged or knee-chest position is helpful in inspecting the vaginal area. Recto-abdominal exam determines the state of the internal genitalia and pelvic viscera. Exam under anesthesia vaginoscopy may be indicated if the office exam is unsatisfactory. Inspection of the vaginal mucosa and cervix is mandatory with genital discharge. The extent to which the vagina is involved is significant. Non-specific vaginitis rarely extends above the lower third of the vagina. Mycotic and specific infections frequently involve all of the vaginal mucosa and external cervix. If there is a discharge, always obtain vaginal fluid for bacteriologic study. Because of inadequacy of material obtained, a Pap smear is rarely adequate in this age group and therefore should not be routinely obtained.

Treatment

Treatment of vaginitis in general is similar to that in the adult. Any foreign bodies must be removed. A plane film of the abdomen is useful to detect radiopaque material. However, the most common foreign body is rolled toilet tissue placed in the vagina.[5] This frequently can be removed as an office procedure.

Herpetic lesions respond to betadine scrub and ointment with topical application of 2% xylocaine jelly. Anti-helminth medication is used to treat pinworms. Management of sandbox vulvitis requires prophylactic measures which include snug underwear and vulvar cleansing after playing. Aerosol vulvar deodorant spray, bubble baths, soaps, nylon and rayon panties and laundry detergents can cause a vulvar dermatitis. Diagnosis and elimination of the offending agents is indicated.

Non-Specific Vulvovaginitis

This entity is defined as an infection involving pyogenic organisms not etiologically related to specific disease.[6] Yellowish discharge staining the underwear of the premenarchal girl reflects denatured proteins. On exam there is a copious yellow vaginal discharge with no evidence of vulvar irritation. The vaginal smear only reveals epithelial cells. This process is self-limiting and subsides shortly after the menses or with ovulatory cycles. Recommendations of cotton underwear with frequent changes throughout the day would be the only therapy indicated. Unscented talcum powder and cornstarch may also be helpful for the vulvar irritation.[1]

If a non-specific vaginitis is noted in the chronic state, the vulvar mucosa and lower one-third of the vagina are hyperemic and reflect poor perineal hygiene. Instruction on proper perineal cleansing, namely, wiping from front to back, is essential. Daily warm sitz baths without medication or soap is also helpful. Cleanse the perineum with soap and water after each bowel movement and bath. Estrogen creams may be necessary to improve the vaginal mucosa. It thickens the layers and produces resistance to infection. Short-term use is necessary to prevent pseudoprecocious puberty from developing. Douching is rarely indicated because trauma to the vaginal mucosa frequently results.[1]

Specific Vulvar Lesions

Condylomata accuminata, pediculosis pubis and chlamydia are also noted in this age group. Diagnosis and management is similar to the adult. Vulvar hematomas must be noted. Frequently there is a history of trauma immediately preceding the hematoma formation. Incision and drainage based on size and symptomatology may be indicated. The imperforate hymen must be diagnosed and incised, mucoid and bloody contents

may be noted in the vagina. Hematocolpos may also be involved. Vulvar vitiligo is diagnosed by decreased pigmentation of the vulvar area. There are no signs or symptoms and treatment is merely observation. Hymenal polyps when diagnosed need to be excised. *Lichen sclerosis et atrophicus* occurs in the pediatric adolescent age group. Diagnosis is by biopsy and treatment is similar to that in the postmenopausal state, namely, local testosterone or cortisone creams. Vaginal adenosis, especially associated with diethylstilbestrol exposure and neoplasms, must be entertained with persistent vaginal discharge which does not respond to therapy.

Behcet's syndrome includes a triad of ocular, oral and genital ulcers associated with systemic disease. The etiologic agent is frequently a virus. Treatment consists of elimination of systemic disease. Fox-Fordyce disease is a variant of chronic apocrine hidradenitis characterized by small intensely pruritic papules on the labia majora. Treatment involves fluorinated steroids and/or oral contraceptives. Intensive debridement may be necessary. Pre-menstrual exacerbations are common.

Dysmenorrhea

Primary dysmenorrhea has an incidence of 52% in postpubescent females.[7] It must be distinguished from secondary dysmenorrhea in which a distinct etiology is established. Primary dysmenorrhea is a common cause for school absenteeism. Family history is noteworthy and frequently positive for dysmenorrhea. The etiology is associated with endometrial prostaglandin synthesis and release producing uterine contractions and subsequent cramps. Prostaglandin inhibitors such as Ibuprofen, (Motrin),[8] Mefenamic acid (Ponstel), Indomethracin (Indocin) are currently F.D.A. approved for treatment of primary dysmenorrhea. Other therapies include diethylstilbestrol, conjugated estrogens, methyltestosterone, progestins, oral contraceptives, cervical dilatation and psychotherapy.

Dysfunctional Uterine Bleeding in the Adolescent

Dysfunctional uterine bleeding (DUB) is the most frequent urgent gynecologic problem in the adolescent. It is alarming for mother as well as adolescent. Defined as abnormal uterine bleeding without apparent anatomic cause in association with anovulation; frequent in this age group because of failure of hypothalamic maturation and absence of positive estrogen feedback. The anovulation results in continuous unopposed estrogen stimulation of the endometrium. The thick build-up of endometrium results in irregular shedding. Cystic glandular hyperplasia may be noted on histologic evaluation. The usual history is that of amenorrhea for two to four months followed by heavy vaginal bleeding for three to four weeks.[9]

Clinical management of dysfunctional uterine bleeding includes diagnosis primarily based on history, general physical and pelvic exams. Endometrial hyperplasia involves 50% of adolescents with abnormal bleeding especially if it is recurrent.[10] Twenty-five percent of these develop Stein-Leventhal syndrome subsequently.[9] Evaluation of the patient includes CBC, platelet count, coagulation studies, thyroid function, blood sugar and urinalysis. Management consists of review and improvement of nutrition, iron therapy if anemia is substantiated, menstrual calendar, periodic CBC's, endocrine work-up if indicated, and ruling out of any chronic underlying illnesses. Hormonal therapy is indicated if irregular flow is noted. Frequently one cycle of a progestational agent such as Norethindrone acetate (Norlutate) 10 mg daily for seven days is sufficient to produce a medical curettage. Emergency management involves three phases (modified from Speroff et. al.):[11]

1. Initial hormonal hemostasis with one oral contraceptive pill (35 or 50 mcg) q 6 hr x 48 hrs, and then decrease the dose to 1 pill per day, to complete a 21 day pack of pills.

2. Cyclic regulation of menses for the next three months to prevent recurrence of dysfunctional uterine bleeding—best per-

formed with Medroxyprogesterone acetate (Provera) 10 mg daily 10 days per month. Selection of 10 days is associated with a lower incidence of endometrial hyperplasia.

3. Continuous long-term observation is then necessary.

Persistent dysfunctional uterine bleeding occurs in 5% of these patients.[9] An indepth evaluation to rule out any coagulopathy is indicated at that point. The differential diagnosis in the persistent DUB group includes clear cell carcinoma associated with DES exposure, pregnancy, coagulopathy, coital trauma, foreign bodies, intrauterine devices, oral contraceptive problems, cervical or endometrial polyps, sarcoma botyroides, ovarian neoplasms, endometriosis, and pelvic inflammatory disease. Altchek notes that with continued severe bleeding of undetermined etiology, there is a higher incidence of anemia, transfusions, infertility, abortion, decreased reproductive potential, endometrial adenomatous hyperplasia and carcinoma in the third and fourth decades.[9]

Acute Abdomen and Pelvic Pain in the Pediatric-Adolescent Patient

Abdominal pain is more likely to be a presenting symptom with abdominal masses in younger patients. A "P,Q,R,S,T" approach to assessing the pain is worthwhile *viz.* provocative factors, quality, radiation and relief, severity and timing. Torsion of an ovary is frequent in this age group. It results in intermittent pain often associated with nausea, vomiting and leukocytosis. Right-sided ovarian torsion is more common, hence its confusion with appendicitis. Mittleschmerz and ruptured corpus luteum must also be considered. Abdominal discomfort may be associated with cystitis especially in relation to riding bicycles with long narrow seats.[1] Cystitis as well as trigonitis is induced by pressure during long rides. Unless significant numbers of bacteria are noted on culture, no specific antibacterial therapy is indicated.

Breast Disorders During Adolescence

The Tanner classification is an orderly progression of breast development which is designed to describe any deviation from the normal pattern of breast development.[12] In general supranumerary nipples (polythelia) is the most common congenital abnormality of the female breast (2%).[1] A family history of similar lesions is common. Polymastia—excessive breast tissue, frequently in the axilla is also noted.[13] One of the more common breast problems is premature thelarche as well as painful breast engorgement which can be related to ingestion of estrogens. Treatment includes reassurance, a well-fitting bra, diet changes to include salt restriction, and discontinuation of hormonal therapy. Asymmetrical breast development is normal. Marked hypoplasia of the breast as well as virginal hypertrophy can only be corrected surgically **after full maturity.** Galactorrhea should be approached as in the adult and one must rule out a pituitary tumor. Breast trauma—contusions, hematomas and small lacerations seldom require special care. Breast tumors and cysts should be treated as in the adult. The fibroadenoma is the most common tumor of the breast in the adolescent.[1] It is hormone dependent to some extent. Microscopically, the tumor consists of connective tissue elements, ducts and acini which are atypically arranged.

Neoplasms of the Genital Tract

Vaginal lesions include epithelial inclusion cysts, vaginal polyps, sarcoma botyroides, in addition to adenosis and clear cell carcinoma of the vagina. Ovarian neoplasms represent 1% of all neoplasms in adolescents.[14] The most common origin is from germ cells in comparison with the adult group where ovarian epithelial tumors are most common.

In the pediatric adolescent group ovarian tumors are more commonly abdominal in presentation because of the original ovarian location. Pain secondary to pressure or torsion is a common presenting symptom.

Malignancy is frequently hard to determine pre-operatively in this age group because ascites

and cul-de-sac nodularity are frequently absent. If a cystic mass is noted and < 5 cm it should be observed through several menstrual cycles as in the adult. A history of intermittent severe colicky pain of several days duration frequently is associated with torsion of an adnexal mass. An intravenous pyelogram must be obtained pre-operatively because a pelvic kidney is present in 1/600 females and can present as an abdominal mass.[1]

All solid tumors require exploration as in the adult. Germ cell tumors (Dermoid) account for 25% of tumors in the adolescent age group,[15] and are seen radiologically 40% of the time.[16] Virtually every tissue in the body except striated muscle has been reported in association with dermoids.[1] Three theories regarding their origin include parthenogenesis, misplaced blastomeres and totipotential cells.[1] Dermoids are usually unilateral, float out of the pelvis and twist on their pedicles producing pain. Bilaterality exists in 15-20%. Malignancy is noted in < 2% and is usually squamous carcinoma.[17] Sonography is helpful in differentiating the smooth-walled, unilocular cyst with virtually zero malignancy rate from potentially malignant tumors. If benign, the treatment is cystectomy, not oophorectomy! In pelvic surgery in this age group the key word is **"conservatism."** The removed cyst should be opened away from the patient. Any excrescences require frozen section. If malignancy is questioned on frozen section wait for the permanent preparations in this age group. All efforts at preservation of reproductive function must be made.[1] Other ovarian tumors in the pediatric-adolescent age group include epithelial tumors, stromal tumors, embryonal carcinoma, yolk sac carcinoma and choriocarcinoma.

This represents an over-view of pediatric adolescent gynecology. The problems, diagnosis and management have been dealt with. We must devote special attention to this age group and be receptive to their medical and psychological needs.

References 1. Kreutner A, Hollingsworth D: *Adolescent Obstetrics & Gynecology.* Chicago, 1978, Yearbook Medical Publishers. 2. *Kentucky Revised Statute,* 214:185, Enacted 1970, Amended 1972. 3. Huffman J: *The Gynecology of Childhood & Adolescence;* Philadelphia, 1969; W. B. Saunders Company. p. 147, ff. 4. IBID, p 152. 5. IBID, p. 154. 6. IBID, p 150. 7. Ylikorkala, O., Dawood, M.: New Concepts in Dysmenorrhea; *Amer J Ob & Gyn.* 130:833, 1978. 8. Halbert D, Demers L, A Clinical Trial of Indomethacin and Ibuprofen in Dysmenorrhea; J Repro Med, 21:219, 1978. 9. Altchek A: Dysfunctional Uterine Bleeding in Adolescence; Clin Ob Gyn, 20:633, 1977. 10. Fraser I, Baird D: *Endometrial Cystic Glandular Hyperplasia in Adolescent Girls;* Jour Obstet Gyn; Col Br. Commonwealth, 79:1009, 1972. 11. Speroff L, Glass R, Kase N: *Clinical Gynecologic Endocrinology & Infertility;* Baltimore, 1978. Williams & Wilkins Co., p. 161. 12. Tanner, J.: Development of the Female Reproductive System During Adolescence; *Clin Obstet Gynecology* 3:135, 1960. 13. Haagensen C: *Diseases of the Breast;* Philadelphia, 1971; W. B. Saunders Company. 14. Suton W: *Clinical Pediatric Oncology;* St. Louis, 1973; C. V. Mosby Co. 15. Costin M, Kennedy, R: Ovarian Tumors in Infants and Children; *Amer Jour Dis Children;* 76:127, 1948. 16. Malkasian G: *Benign Cystic Teratomas;* Obstet. Gynecol; 29:719, 1967. 17. Underwood P, Kreutner A, quoted from Kreutner, A., Hollingsworth, D.: *Adolescent Obstetrics & Gynecology;* Chicago, 1978; Yearbook Medical Publishers, Inc., p. 511.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

Clinical Approach to the Choice of Antimicrobial Therapy, Case #20, Part A: Fever in Pregnancy

DAVID B. WATERFILL, M.D., WILLIAM C. TEMPLETON, M.D., MARTIN J. RAFF, M.D. AND JULIO C. MELO, M.D.

This is the twentieth in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the diagnosis of infectious diseases and the use of antibiotics. A case history is presented, followed by multiple choice questions relevant to management of the patient described. The authors' choices of answers and explanations of how they assessed these cases and chose therapeutic regimens are provided.

A 27-year-old pregnant Korean woman who has been in the United States for eight months presents to hospital with a history of six to eight weeks of low-grade fever, night sweats, malaise and a 10 pound weight loss. A dry, non-productive cough has developed during the past 10 days.

Physical examination reveals a well-developed, well-nourished oriental female in no distress. Pertinent findings include post-tussive rales in the right upper lobe and an enlarged uterus approximately 18-22 gestational weeks in size.

Chest x-ray reveals a small right upper lobe infiltrate with a question of early cavitation. Gram-stain of sputum yields scanty mixed normal flora with a few inflammatory cells.

The most likely diagnosis is:

A. Pneumococcal pneumonia.
B. Acute histoplasmosis.
C. Aspiration pneumonia.
D. Pulmonary tuberculosis.
E. *Klebsiella pneumoniae* pneumonia.

Answer: D. Pulmonary tuberculosis.

Pneumococcal pneumonia is more likely to present as an acute illness with one or more shaking chills, high fever and a cough productive of purulent sputum. Sputum gram-stain should reveal polymorphonuclear leucocytes with associated gram-positive lancet-shaped diplococci. Pulmonary infiltrates are most common in the lower and middle lobes rather than the right upper lobe. In addition, in the absence of an antecedent viral illness or some other predisposing factor, pneumococcal pneumonia would be an unusual disease in a 27-year-old patient.

An individual with a history of recent arrival in an area endemic for histoplasmosis has a reasonable risk of acquiring this disease. The vast majority of primary cases are asymptomatic. When symptomatic, the acute pulmonary disease may be mild, with fever and a cough which suggests airway obstruction. Severe disease may follow exposure to large numbers of organisms but such exposure can usually be elicited by epidemiological history. In both mild and severe illness the x-rays usually show hilar and mediastinal lymphadenopathy and small single or multiple infiltrates, often with ill-defined margins. Erythema nodosum or erythema multiforme may also occur. Histoplasmosis cannot be ruled out by the clinical information provided here, but is less likely than tuberculosis.

Aspiration resulting in anaerobic pneumonia is not a likely diagnosis in an otherwise healthy patient without a history of vomiting, loss of con-

From the Department of Pediatrics, the Section of Infectious Diseases, Department of Medicine, and the Department of Microbiology and Immunology, the University of Louisville School of Medicine, Louisville.

sciousness, seizure, neurologic defects or other preexisting problems. Sputum from such patients would often be foul-smelling and contain multiple morphologic forms of bacteria along with large numbers of inflammatory cells.

Patients less than 40-years-old rarely develop *Klebsiella pneumoniae* pneumonia, and this disease is almost invariably seen only in those with underlying debilitating conditions (e.g., alcoholism, COPD, diabetes, malignancy). Patients are acutely and critically ill and the duration of this woman's symptoms and their lack of severity virtually precludes this diagnosis. When *Klebsiella pneumoniae* pneumonia is present the sputum is mucoid and contains large encapsulated gram-negative bacilli. X-rays frequently show dense consolidation of a pulmonary segment or an entire lobe.

Ninety percent of all new cases of active pulmonary tuberculosis in the United States are due to reactivation of primary disease.[1,2] Primary tuberculosis is initiated by the inhalation of infected airborn droplet nuclei. Although a single bacterium penetrating into an alveolus is sufficient to initiate infection, this is unlikely to occur in the absence of intimate exposure to an individual with active disease, since there are relatively few organisms present in coughed secretions from these patients.[3,4] An exception to this is in the laryngeal form of tuberculosis in which large numbers of bacilli are emitted into the surrounding atmosphere. Forty-eight percent of household contacts of a patient with active tuberculosis will develop a positive skin test.[5,6,7] Symptoms are mild or absent in two-thirds of adults, and less than 20% are diagnosed by chest x-ray.[8] When the chest x-ray is abnormal, involvement is usually noted in the lower lobes or the anterior segments of upper lobes. Twenty percent will eventually develop calcifications. Lymphohematogenous spread occurs from the primary site but fortunately the disease is self-limiting in most individuals.[2,3] Twenty percent will eventually develop pulmonary calcification. Progressive parenchymal involvement occurs in only 10% and there is usually lifelong immunity to primary reinfection in the others.[2,3]

Strong risk factors for reactivation and development of secondary tuberculosis include silicosis, diabetes mellitus, and the postgastrectomy state. Other possible predisposing causes are immunosuppression (particularly with corticosteroids), alcohol, malignancy (especially lymphoma or leukemia), hemodialysis and intestinal bypass surgery.[5,9]

Opinion about the effect of pregnancy upon tuberculosis has varied greatly throughout medical history. From the time of Hippocrates until the end of the 19th century it was thought that tuberculosis was ameliorated by the gravid state. Following this the opposite viewpoint came into vogue, to the extent that during the early 1900's therapeutic abortion was recommended in patients who developed tuberculosis.[10] Evidence in the medical literature at the end of the pre-antibiotic era began to refute this opinion,[11] and it was subsequently shown that with proper chemotherapy pregnant patients are at no increased risk for the progression or reactivation of their infection.[12,13] For all patients with primary tuberculosis the risk of reactivation is 4-5% during the first year, but declines to as low as 0.01% per year thereafter.[3] Five to fifteen percent reactivate within five years, and another 3-5% during the remainder of life.[1]

Initial symptoms of progressive pulmonary involvement include anorexia, weight loss and night sweats; some patients have chills and/or myalgias. Later, chest pain, cough and hemoptysis ensue. Dyspnea, abnormal arterial blood gases and a "toxic" appearance occur rarely.[8] Chest x-ray findings are usually those of pulmonary infiltrates in the apical or posterior segments of the upper lobes or superior segments of the lower lobes. There may be infiltrates seen radiologically which are not detected by physical examination. If cavities are present they usually lack air-fluid levels and often have surrounding infiltrates.[8]

The acute diagnosis of tuberculosis requires demonstration of the organism in the tissues or exudates from the infected individual. This can be accomplished by staining techniques but more accurately by culture. This may be done by staining at least three early-morning sputum samples for mycobacteria using Ziehl-Nielson or fluores-

cent methods, and by inoculating them into appropriate media. Organisms may also be observed and grown from gastric washings or bronchoscopic aspirates.[8,9] Unfortunately, cultures often take from three to eight weeks to become positive and therapy must be instituted empirically pending results of culture and sensitivity. Although a presumptive diagnosis may be established based upon clinical history, physical examination, laboratory testing and radiological evidence, isolation of *Mycobacterium tuberculosis* is necessary. It allows the clinician to comfortably discard alternative diagnoses, and to adjust chemotherapy based upon the specific anti-tuberculous drugs to which the organism is sensitive.

An intradermal skin test is placed using five tuberculin units (TU) of Tween-stabilized PPD-tuberculin. One of the following statements is correct:

A. A negative skin test is common in pregnant women with tuberculosis.
B. A positive skin test will confirm the diagnosis of active tuberculosis in this patient.
C. Non-immunosuppressed patients with active tuberculosis will always have a positive skin test.
D. Prior treatment with BCG will make the skin test negative.
E. A positive skin test is evidence of the presence of living tubercle bacilli within the patient but may be due to inactive infection rather than to active tuberculosis.

Answer: E. A positive skin test is due to the presence in the body of tubercle bacilli, whether acquired naturally or by inoculation with BCG. These may not necessarily be *Mycobacterium tuberculosis* since there is antigenic cross-reactivity with non-tuberculous mycobacteria.

Skin testing is best performed using 0.1 cc (5 units) of purified protein derivative (PPD) injected intradermally to produce an initial wheal (Mantoux test). The site is examined 48 hours after inoculation. A positive test is greater than 10 mm of *palpable* induration. Less than 10 mm of induration may be due to infection with atypical mycobacteria. Old tuberculin (OT) may be used instead of PPD, but there is a higher incidence of false positive results due to product impurities. Tests using standardized multiple-puncture devices include the Tine, Heaf, etc. These are excellent screening procedures because of ease of application. However, the size of the reaction cannot be accurately quantitated, particularly if OT is employed as the antigen.

Patients with tuberculosis may not develop a positive reaction to PPD until the disease has been present for six to eight weeks, so the test may require repetition if negative and a high clinical index of suspicion exists.[14] In fact, negative skin tests in patients with active tuberculosis have been reported to range from rare up to one-half of these tested.[15,16] Approximately 8% of the U.S. population are PPD—positive.[5] False-negative tests occur with immunosuppression, corticosteroids, viral or other infections, cancer, sarcoidosis and in the elderly.[1,14] Pregnancy itself rarely produces false-negative results in the third trimester.[17]

Screening for pulmonary tuberculosis is important in the pregnant patient.[18] Some authorities advocate routine chest x-rays in such patients[19,20] while others would obtain radiographic studies only with a suggestive history and physical examination.[21] The most widely-held view currently is to obtain radiographs only in those patients with a positive PPD.[10,22,23] If this is done, appropriate shielding to protect the fetus from radiation should be employed. Chest x-rays should be performed in those pregnant patients who live in an area with a high prevalence of positive tuberculin skin tests.[24]

Continued

References 1. Johnston R F, and Wildrick K H: The impact of chemotherapy on the care of patients with tuberculosis. *Amer Rev Resp Dis* 109:630-664, 1974. 2. Stead W W, Kerby G R, Schleuter D P, and Johdahl C W: The clinical spectrum of primary tuberculosis in adults: confusion with reinfection in the pathogenesis of chronic tuberculosis. *Ann Intern Med* 68:731-744, 1968. 3. Geppert E F, and Leff A: The pathogenesis of pulmonary and miliary tuberculosis. *Arch Intern Med* 139:1381-3, 1979. 4. Riley R L, Mills C C, O'Grady F, et al: Infectiousness of air from a tuberculosis ward: ultraviolet irradiation of infected air: comparative infectiousness of different patients. *Amer Rev Resp Dis* 85:511-525, 1962. 5. Leff A, and Geppert E F: Public health and preventive aspects of pulmonary tuberculosis: infectiousness, epidemiology, risk factors, classification and preventive therapy. *Arch Intern Med* 139:1405-10, 1979. 6. Chapman J S, and Dyerly M O: Presumably infected premises with respect to conversion of the tuberculin test. *Amer Rev Resp Dis* 89:197-199, 1964. 7. Loudon R G, and Spohn S K: Cough frequency and infectivity in patients with pulmonary tuberculosis. *Amer Rev Resp Dis* 99:109-111. 1969. 8. Banner A S: Tuberculosis: clinical aspects and diagnosis. *Arch Intern Med* 139:1387-90, 1979. 9. Bates J H: Diagnosis of tuberculosis. *Chest* 76:757-63, 1979. (suppl.) 10. Weinstein, L and Murphy T: The manage-

ment of tuberculosis during pregnancy. *Clin Perinatol* 1:395-405,1974. 11. Stewart C J and Simmonds F A H: Child-bearing and pulmonary tuberculosis. *Brit Med J* 2:726-9, 1947. 12. de March P: Tuberculosis and Pregnancy: five to ten year review of 215 patients in their fertile age. *Chest* 68:800-804, 1975. 13. Flanagan P, and Hensler N M: The course of active tuberculosis complicated by pregnancy. *JAMA* 170:783-7, 1959. 14. Reichman L B: Tuberculin skin testing: the state of the art. *Chest* 76:764-70, 1979. (suppl.) 15. Johnston W W, Saltzman H A, Bufkin J H, and Smith D T: The tuberculin test and diagnosis of clinical tuberculosis. 81:189-195, 1961. 16. Holden M, Dubin M R, and Diamond R H: Frequency of negative intermediate-strength tuberculin sensitivity in patients with active tuberculosis. *New Engl J Med* 285:1506-1509, 1971. 17. Conn R W Effect of pregnancy upon tuberculin reaction. *Amer Rev Tuberc* 46:350-1, 1942. 18. Leontic E A Respiratory disease in pregnancy. *Med Clin N Amer* 61:119-21, 1977. 19. Schaefer G, Douglas R G and Silverman F: A re-evaluation of the management of pregnancy and tuberculosis. *J Obstet Gynecol Br Emp* 66:990-7, 1959. 20. Pridie R B and Stradling P: Management of pulmonary tuberculosis during pregnancy. *Brit Med J* 2:78-9, 1961. 21. Mattox J H: The value of a routine prenatal chest x-ray. *J Obstet Gynecol* 41:243-5, 1973. 22. Wilson E A, Thelin T J, and Dilts P V Jr: Tuberculosis complicated by pregnancy. *Amer J Obstet Gynecol* 115:526-9, 1973. 23. Reichman L B Prenatal x-ray (letter). *Amer J Obstet Gynecol* 43:605, 1974. 24. Mattox J H Prenatal x-ray (letter). *Amer J Obstet Gynecol* 43:605, 1974.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Recurrent Electrocardiographic Abnormalities Associated With Recurrent Pancreatitis

JAMES E. NUTT, M.D., GURBACHAN S. SOHI, M.D. and NANCY C. FLOWERS, M.D.

A patient presented with acute pancreatitis on two occasions. Transient electrocardiographic abnormalities occurred suggesting anterior subepicardial ischemia during the first episode and anterior infarction during the second. Coronary arteriography after the first episode showed only minimal disease of the left circumflex coronary artery. A possible mechanism for the electrocardiographic abnormalities is alteration of repolarization by sympathetic influence via the stellate ganglion, as suggested by QT prolongation and T wave inversion. However, in the setting of acute pancreatitis a transient electrocardiographic pattern consistent with myocardial infarction is rare. When the electrocardiogram suggests myocardial infarction, an ischemic etiology is more likely.

Introduction

SEVERAL cases with transient electrocardiographic abnormalities consistent with ischemia or myocardial infarction in association with acute pancreatitis have been reported.[1-6] The proposition that acute pancreatitis is the cause of such electrocardiographic abnormalities, however, has been challenged because of lack of definitive evidence to exclude an ischemic process in most cases.[6,7] All studies have reported on a single instance of pancreatitis. We report a case of recurrent pancreatitis with recurrent electrocardiographic abnormalities consistent with ischemia in a patient with no hemodynamically significant disease on coronary arteriography.

From the Division of Cardiology, Department of Medicine, University of Louisville School of Medicine, Louisville, Kentucky and Veterans Administration Hospital, Louisville, KY.

Case Report

A 60-year-old black male with a history of ethanol abuse was admitted to Louisville General Hospital on July 22, 1976, with a diagnosis of acute pancreatitis, elevated serum lipase, serum glutmatic oxaloacetic transaminase (SGOT) and lactic dehydrogenase (LDH) (Table I), and acute abnormalities in the electrocardiogram. He was briefly monitored in the Coronary Care Unit then transferred to the Louisville Veterans Administration Hospital where he had an uncomplicated recovery but the electrocardiographic abnormalities persisted which were striking compared to a prior normal electrocardiogram (Figure 1A, B). Cardiovascular examination was unrevealing. A coronary arteriography demonstrated an insignificant plaque in the left circumflex coronary artery, but the left anterior descending and the right coronary arteries were normal (Figure 2A, B). The left ventricular angiogram showed mild inferior hypokinesis.

No follow-up was available until 7/18/77 when the patient was readmitted with recurrent pancreatitis following continued consumption of one-half to one pint of gin daily. Initial examination revealed a palpable systolic blood pressure of 40 mm Hg, tachycardia and abdominal tenderness without ascites but no signs of congestive heart failure. The hypotension responded immediately to three liters of intravenous fluids. He was monitored at first in the medical intensive care unit and his hospital course was complicated only by mild alcohol withdrawal symptoms.

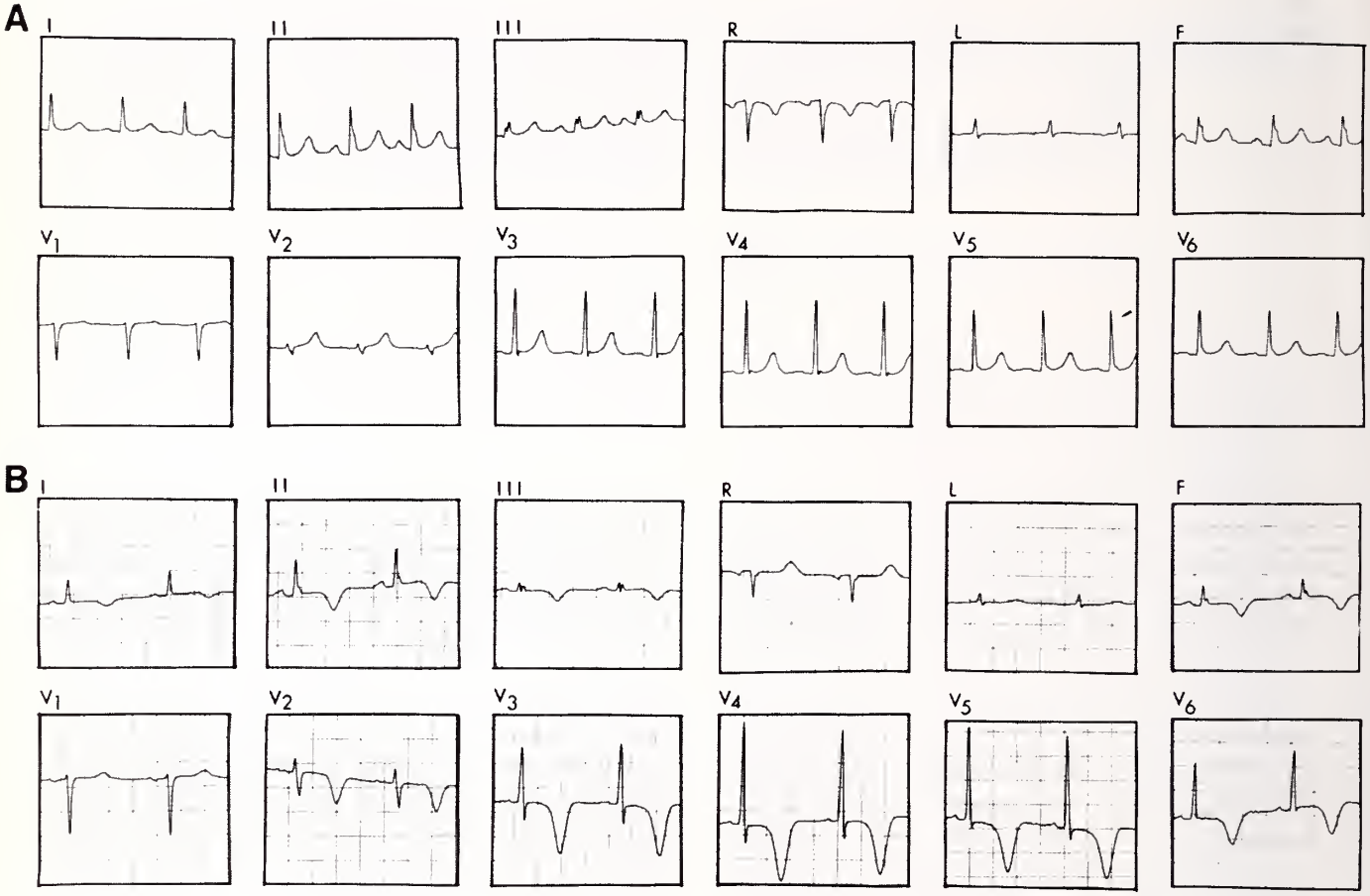


Fig. 1A: An electrocardiogram on 7/13/75, before admission for pancreatitis, is normal.

Fig. 1B: An electrocardiogram obtained on 8/9/76, eighteen days after the first admission for pancreatitis, showing generalized deep symmetric T wave inversion (especially V_2 - V_6) suggesting subepicardial ischemia. QT prolongation is also seen.

An admission electrocardiogram (Figure 3A) showed that the striking T wave inversion seen on 8/4/76 had resolved. However, serial electrocardiograms initially revealed loss of R wave voltage in the anteroseptal precordial leads, development of symmetric T wave inversion which was somewhat blunted at first, and QT prolongation (Figure 3B). Later the R wave voltage returned but the T wave inversion persisted (Figure 3C). An electrocardiogram obtained later (10/4/77) showed resolution of the anterior T wave inversion although non-specific ST-T abnormalities persisted in other leads (Figure 4).

Serial measurements showed an initial increase then decrease in serum lipase and creatine phosphokinase (CPK), but only minimal changes in SGOT, LDH, potassium, and calcium (Table I). CPK and LDH isoenzymes were not obtained.

Discussion

There are many case reports of electrocardiographic abnormalities consistent with myocardial infarction or ischemia in association with acute pancreatitis, where the mechanism of these changes is presumed to be related to pancreatitis and not ischemia due to coronary artery obstruction.[1-6] However, this electrocardiographic diagnosis of simulated or "pseudo" myocardial infarction has been questioned.[6,7] Autopsy confirmation was not available in most of those re-

ports or there were associated factors, especially hypotension, which may have caused the electrocardiographic abnormalities. Three reported cases are interesting in that such associated factors were excluded and pathologic[1] or angiographic[2,3] data showed no coronary artery disease or myocardial infarction.

Various mechanisms for these electrocardiographic abnormalities have been proposed. Proteolytic enzymes given intravenously have been reported to cause various changes in the P, QRS, ST and T portions of the electrocardiogram.[8-10] Associated pathologic changes in the myocardium consisting of diffuse focal necrosis of the muscle fibers have been described in rabbits,[9] but were not found in dogs.[10] Clinical correlation of these findings is lacking.

A more interesting proposal is that damage occurs at the myocardial cellular level possibly from proteolytic enzymes,[3] "metabolic stress" and ischemia[11] or hypotension[12] which produces a local leak of electrolytes without diagnostic changes in measured serum concentrations of cardiac enzymes. This leakage may cause electrically "silent" areas without necrosis in the myocardium which may be reflected on the surface electrocardiogram as appearance of pathological Q waves, loss of R waves, or other changes in QRS.[11] Presumably, repolarization abnormalities could also occur. These changes resolve as the basic process improves.

Another mechanism not previously considered in the literature is mediation of the repolarization abnormalities through the autonomic nervous system. Conceivably, autonomic responses secondary to hypotension or stress mediated through the stellate ganglia may influence repolarization. Experimentally, unilateral stellate ganglion stimulation or block can produce an increase in T wave amplitude or T wave inversion often with QT prolongation. This mechanism is thought to be responsible for neurogenic repolarization abnormalities[13] and reported appearance of Q wave with subarachnoid hemorrhage in the absence of pathologic evidence of myocardial infarction.[14] In addition, stellate ganglion stimulation has been shown to cause coronary artery constriction in the dog.[15] An autonomic influence is suggested in our patient by the development of inverted and blunted T waves and QT prolongation during both episodes of pancreatitis.

Other mechanisms which have been suggested are electrolyte and calcium disturbances,[4] vagal influences[5] and hypercoagulability.[16]

Transient hypotension was seen during the second admission of our patient. This has been re-



Fig. 2A: An LAO projection of a left coronary arteriogram demonstrating a normal left anterior descending coronary artery and hemodynamically insignificant plaque formation (arrow) in the proximal left circumflex artery.



Fig. 2B: An LAO projection of a normal right coronary arteriogram. LAO = left anterior oblique.

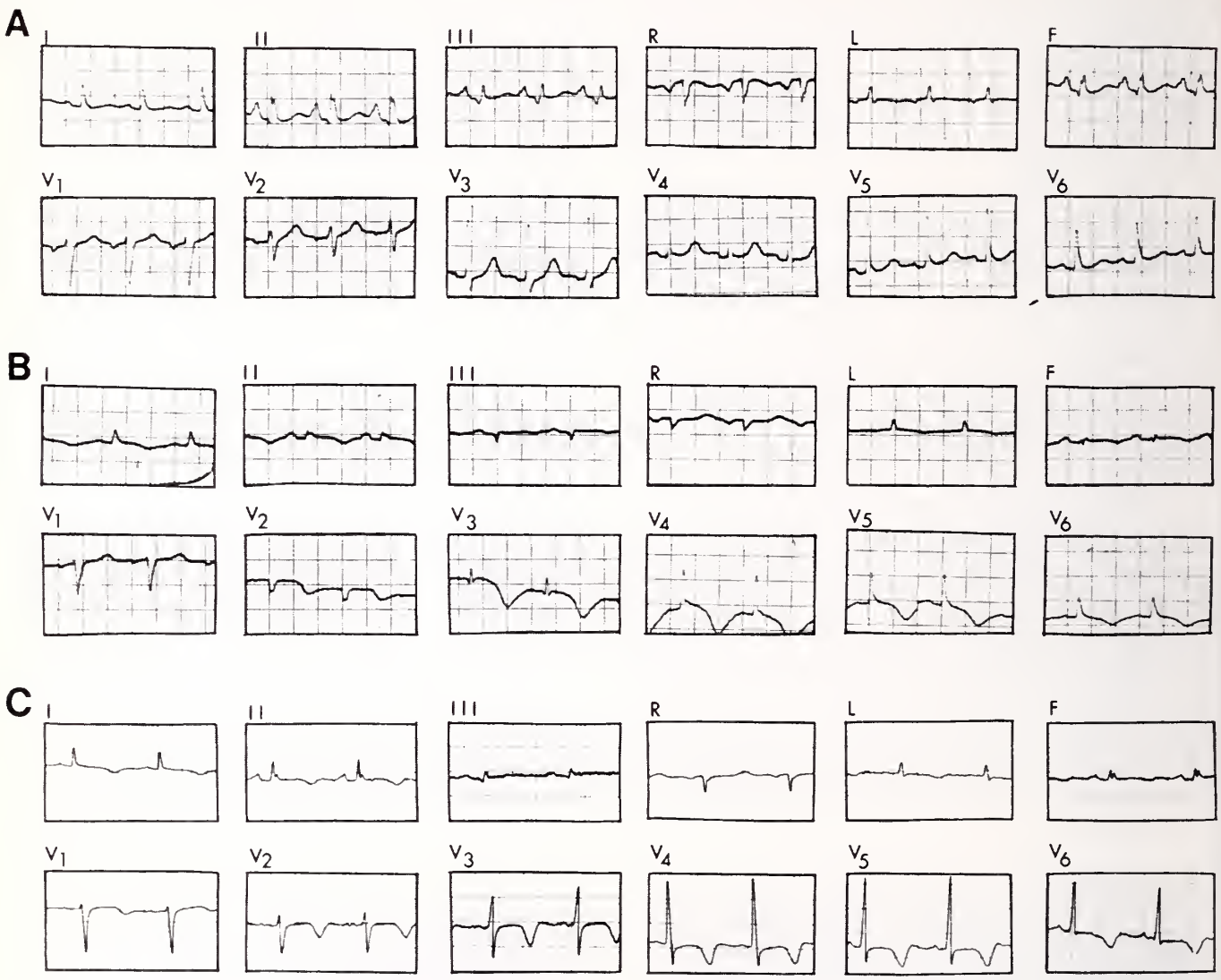


Fig. 3A: An electrocardiogram obtained on 7/18/77, immediately in second admission, showing upright T waves where inversion was seen previously (compare Figure 1B). Fig. 3B: On 7/19/77 there is loss in the amplitude of R wave in V_1 to V_3 and diffuse T wave inversion consistent with anteroseptal infarction. QT interval in prolonged. Fig. 3C: By 7/27/77 normal anterior R wave progression has returned, but T wave inversion and QT prolongation persist.

ported to be associated with transient electrocardiographic abnormalities in the past.[12] Coronary artery spasm has not been excluded and ergonovine maleate stimulation was not performed at catheterization. Myocardial scanning was not available at the time the patient presented. Nevertheless, we feel that there is an interesting association of recurrent pancreatitis with recurrent electrocardiographic abnormalities in this patient. Significant coronary occlusive disease in our patient and those of Spritzer[2] and Cohen[3] has been excluded by coronary arteriography.

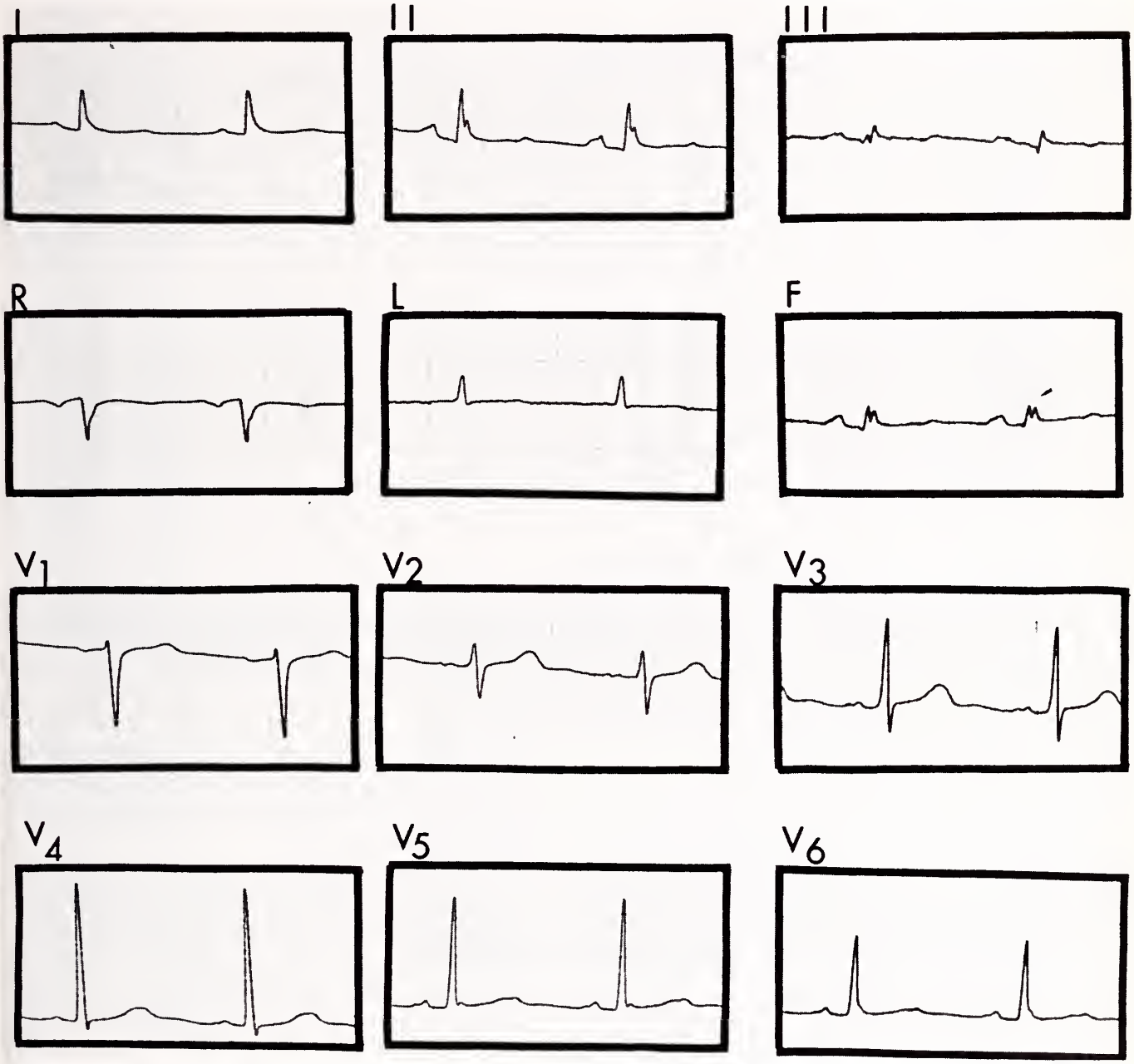


Fig. 4: An electrocardiogram on 10/4/77 showing resolution of the previously present anterior T wave inversion. QT interval is normal (Compare Figure 3).

Transient electrocardiographic abnormalities associated with pancreatitis, such as those discussed above, are not common. However, acute myocardial infarction has been found at autopsy in patients dying with acute pancreatitis.[17,18] In the clinical setting of acute pancreatitis coronary artery disease cannot be excluded immediately and conditions often associated with ischemia, for example, hypotension may be present. If ischemic changes, or a pattern suggestive of myocardial infarction develops on the electrocardiogram, then an ischemic etiology is more likely and the patient should be monitored appropriately. However, we conclude that in our patient the electro-

TABLE I Serum Biochemistry Values* Obtained During Episodes of Pancreatitis

	1976		1977						
DATE	7/22	7/23	7/17	7/18	7/19	7/20	7/22	7/24	7/25
Lipase (0-1.5 IU/L)		3.28†		3.9	3.3	3.1	2.0	1.20	0.92
Amylase (15-200 IU/L)			347	156	217	272	245	162	158
Calcium (8.5-10.5 mg%)	8.6			9.0	8.0	7.7	8.0		
Potassium (3.5-5.0 mEq/1)	6.3χ		3.9	3.6	3.9	3.9	3.7		3.1
Bilirubin (0-1.5 mg%)	2.7			1.9					
CPK (30-170 IU)			192	134	90	60			
SGOT (7.5-40 mg%)	155		69	48	48	43		42	36
LDH (100-250 mg%)	950		186		145	136		220	133
SGPT (13-41 IU/L)							33		27

*Normal values in parentheses, † Normal range (0-1 mg%), χ Hemolyzed specimen, CPK = Creatine phosphokinase, SGOT = Serum glutamic oxaloacetic transaminase, LDH = Lactic dehydrogenase, SGPT = Serum glutamic pyruvic transaminase.

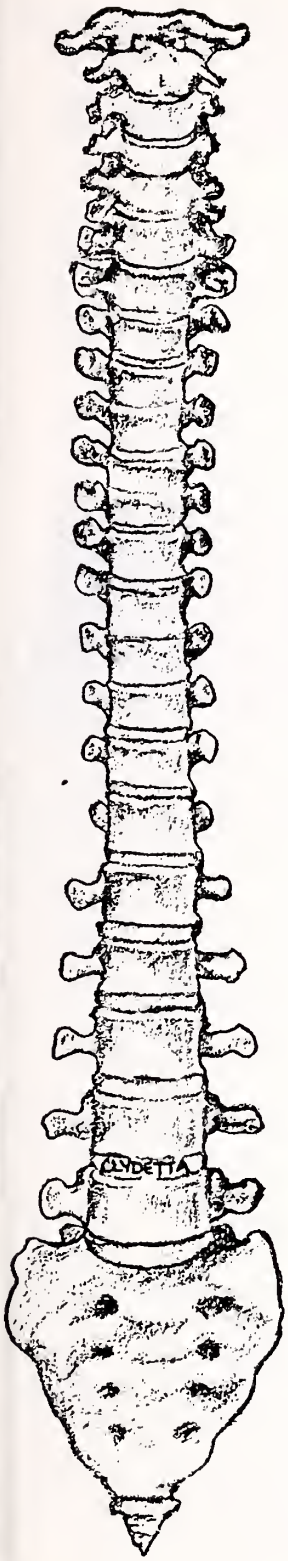
cardiographic abnormalities were most likely not a reflection of an ischemic process.

References 1. Bauerlein T C, Stobbe L H D: Acute pancreatitis simulating myocardial infarction with characteristic electrocardiographic changes. *Gastroenterology* 27:861, 1954. 2. Spritzer H W, Peterson C R, Jones R C, et al: Electrocardiographic abnormalities in acute pancreatitis. *Milit Med* 134:687, 1969. 3. Cohen M H, Rotsztain G, Bowen P J, et al: Electrocardiographic changes in acute pancreatitis resembling acute myocardial infarction. *Am Heart J* 82:672, 1971. 4. Krongrad E, Feldman F: Acute hemorrhagic pancreatitis. *Am J Dis Child* 119:143, 1970. 5. Shauma'a, M H, Rubeiz G A: Acute pancreatitis with electrocardiographic findings of myocardial infarction. *Am J Med* 32:827, 1962. 6. Goldberger A L: Myocardial infarction: Electrocardiographic differential diagnosis. p 82. C.V. Mosby Co., St. Louis, 1975. 7. Pruitt R D, Dennis E Q, Kinard S A: The difficult electrocardiographic diagnosis of myocardial infarction. *Prog Cardiov Dis* 7:85, 1963. 8. Lieberman J S, Taylor A, Wright I S: The effect of intravenous trypsin administration in the electrocardiogram of the rabbit. *Circulation* 10:338, 1954. 9. Kellner A, Robertson T: Selective necrosis of cardiac and skeletal muscle induced experimentally by means of proteolytic enzyme solutions given intravenously. *J Exp Med* 99:387, 1954. 10. Pollock A V, Bertrand C A: Electrocardiographic changes in acute pancreatitis. *Surgery* 40:951, 1956. 11. DePasquale N P, Burch G E, Phillips J H: Electrocardiographic alterations associated with electrically "silent" areas of myocardium. *Am Heart J* 68:697, 1964. 12. Shugull G I: Transient QRS changes simulating myocardial infarction associated with shock and severe metabolic stress. *Am Heart J* 74:402, 1967. 13. Abildskov J A: Central nervous system influence upon electrocardiographic waveforms. Advances In Electrocardiography (Drs. Schlant, R.C. and Hurst, J.W., eds.) p. 423. Grune and Stratton, New York and London, 1972. 14. Srivastava S C, Robson A O: Electrocardiographic abnormalities associated with subarachnoid hemorrhage. *Lancet* 2:431, 1964. 15. Gerova M, Barta E, Gero J: Sympathetic control of major coronary artery diameter in the dog. *Circ Res* 44:459, 1979. 16. Tuzhiliu S A, Dreiling D A: Cardiovascular lesions in pancreatitis. *Am J Gastroenterol* 63:381, 1975. 17. Evans H W, Gross J B, Baggenstoss A H: Acute and subacute interstitial pancreatitis: A clinicopathologic study. *Gastroenterol* 35:457, 1958. 18. Kalliumaki J L, Antilla, L.E.: Problems in acute pancreatitis. *J Am Geriatric Soc 19:517, 1971.*

Editor's Note

The authors emphasis on cardiac monitoring and evaluation is well directed. Most deaths early in the course of pancreatitis are of cardiac or circulatory origin.

The conclusion that in this patient the electrocardiographic changes were not the result of hypoperfusion and were possibly due to autonomic influences is bold. Cardiac changes in acute pancreatitis are not unusual and it is well known that calculous biliary tract disease is associated with changes in the electrocardiogram. Alterations in the cardiac output and total peripheral resistance up to 2,030 dyne-sec/cm^5 occur in pancreatitis as well as alterations of resistance within certain viscera. The liberation of phospholipase A, formation of platelet aggregates and vasoactive substances and release of possible myocardiac depressant factor may affect cardiac assessment.



Continuing Education Conference

on

Commonly Seen Spine Problems

For The Primary Care Physician

Campbell House Inn
Lexington, Kentucky

October 17-18

Cost of $100 includes lunch on October 17 at Keeneland in the Lexington Room and an afternoon at the races. Sponsored by Good Samaritan Hospital, nine hours of category I CME credit, six hours of American Academy of Family Physicians credit.

Moderators: Richard H. Mortara, M.D., Neurosurgeon
and
H. Brooks Morgan, M.D., Orthopedic Surgeon

For further information or assistance call:
(606) 252-6612 extension 3156

Dr. Constance M. Fulmer
Director of Medical Education
Good Samaritan Hospital
310 South Limestone Street
Lexington, Kentucky 40508

G
S
H

Manage your patient time for quality care. Manage your practice for greater efficiency.

A medical practice is communications intensive. Bell – at the forefront of communications knowledge – offers systems and services to help you make more and better use of your doctor-patient time. And increase staff productivity by increasing efficiency in office procedures.



Eliminating manual information handling reduces clerical work so your staff can focus on patient care.

Streamline communications.
Numerous practice management problems are fundamentally related to communications. It takes an average of 75 information exchanges, verbal and on paper, involving doctors, patients, office personnel, hospitals, outside providers, to move each patient from appointment scheduling through payment processing. Bell communications systems can help you manage these exchanges more effectively.



Improve patient flow. And cash flow.
Cut down or cover no shows. Speed collections. Reclaim bad debt write-offs. A Bell Phone-Power Program can teach your staff proven techniques for handling these problems better.

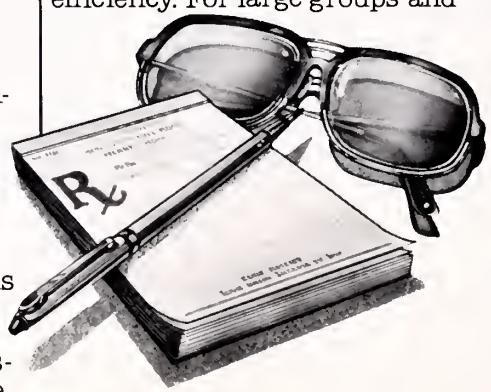
Reduce patient impatience.
Decrease waiting time. Eliminate conflicting appointments. Level out peaks and valleys in patient load. Bell data terminals that access automated scheduling systems can help avoid clerical errors and needless disruption of the doctor's schedule.

Improve staff coordination.
Eliminate time-consuming footwork. Bell communications systems can provide instant inter-office consultation, personnel tracking, patient location.

Expedite billing and claims processing.
Recapture lost-to-error billings. Reduce turn-around time on third party reimbursements. Relieve the paperwork burden. Bell data terminals such as the Dataspeed® 40 will access a computer or service bureau to provide quick and accurate recording and retrieval of billing and claims information.

Earn CME credit.
Bell offers medical-oriented seminars to show you how the latest communications technology and techniques can improve your practice management procedures. In one short, enlightening forum, you'll gain valuable information to help you improve practice profitability. And you'll earn Category 2 CME credit.

Gain from advanced technology.
Whether your practice is solo or group, a Bell communications system with features for the future can help you manage better today. The ComKey® family of systems offers intercoms with one-button signaling and hands-free answering, multi-line conferencing for discussions with several colleagues at once, and other features for speed and efficiency. For large groups and clinics, a sophisticated Horizon® system or a totally electronic Dimension® PBX offers the flexibility large practices demand for unique communications needs.



Call on the specialists.
South Central Bell has account executives trained to solve the unique communications problems of medical practices, solo and group. Put our knowledge to work for you. Call toll free, **1-800-633-6272,** Ext. 100 (in Alabama, 1-800-272-8484). Or complete and mail the coupon below. **South Central Bell.**



Advanced ComKey® systems with hands-free intercom keep receptionists, nurses, technicians within instant reach.

The knowledge business

South Central Bell
Suite 100, P.O. Box 336
Birmingham, Alabama 35201

☐ **Yes,** we want to improve our practice management procedures. Tell me more about:
- ☐ Phone-Power for medical practices
- ☐ Billing/claims processing
- ☐ Automated scheduling
- ☐ ComKey® systems ☐ Data terminals
- ☐ Electronic communications systems for groups/clinics
- ☐ Bell's medical-oriented seminars that earn CME credit.

Name _____
Practice Name _____
☐ Solo ☐ Group/No. Physicians _____
Address _____
City/State/Zip _____
Telephone ( ) _____

Call toll free: 1-800-633-6272
Ask for Extension 100.
(In Alabama, dial 1-800-272-8484)

Surgical and Vocal Rehabilitation of Laryngeal Trauma

Trauma to the larynx, trachea and other areas of the upper respiratory system and digestive tract often occur during automobile accidents, being the result of penetrating wounds or other blunt trauma. These injuries may result in a combination of airway obstruction, cartilage fracture, tissue loss, recurrent laryngeal nerve paralysis and dysphonia. In elaborating the anatomical and physiological results, Snow[1] states that crush injuries to the larynx often yield progressive dyspnea because subcutaneous edema produces upper airway stenosis. As a result, the laryngeal lumen may become disrupted or obliterated. In addition, the edematous area often is accompanied by lacerated mucous membrane and exposed cartilage. Lambert and McMurry[2] advocate initial close attention to cases of laryngotracheal trauma as well as prolonged postoperative observation. The latter is required since significant stenosis may appear several months following the initial injury due to formation of scar tissue. If recurrent laryngeal nerve damage occurs, arytenoid fixation and vocal cord laterlization may become necessary. The following case history of a patient with extensive laryngeal trauma illustrates his primary treatment, followed by long-term surgical and vocal rehabilitation.

From the Department of Surgery, Program in Communicative Disorders and Section of Otolaryngology, University of Louisville School of Medicine, Louisville, Kentucky

CASE REPORT

Surgical Management

A 21-year-old white man involved in an automobile accident was taken to a hospital where he was treated for severe head and neck injuries. At that time a tracheostomy was performed to facilitate breathing, and he was then transferred to Louisville General Hospital for further treatment.

Physical examination showed multiple facial lacerations, an enlarged right pupil with delayed reaction and possible laryngeal fracture accompanied by hematoma. After admission, bronchoscopy by flexible bronchoscope indicated grossly edematous cords, unlacerated proximal esophagus and presumably undamaged proximal trachea and distal bronchial tree. A neurosurgical evaluation revealed cerebral concussion.

The Otolaryngology Service was consulted, and on the fifth hospital day, direct laryngoscopy under general anesthesia revealed a massive fracture of the thyroid and cricoid cartilages with avulsion of the epiglottis (Fig. 1). An abscess cavity surrounded the larynx. Subsequently, laryngeal repair and stent of the larynx fracture was performed.

Postoperatively, the patient was neurologically stable with no abnormal neurological signs. The tracheostomy tube remained in place. Drainage from the neck continued for several days and contained nonhemolytic streptococci, *E. coli,* and fungi. The patient was placed on antibiotic therapy.

The stent was removed after approximately six weeks, but the tracheostomy remained in place. At that time, the patient had fairly adequate airway and experienced no dysphagia. Gradually, the cannual size was decreased and eventually plugged, after which the patient wore the plugged tube for four months without difficulty.

Follow-up examination at four months revealed a deformed larynx shifted anteriorly and to the left with the vocal cord apparently missing on the left hemilarynx. The only evidence of any cordal tissue on the left was a band of scar tissue where the left cord was originally attached. Examination of the right side of the larynx revealed the presence of a true cord with a mobile arytenoid (Fig. 2). The mobile arytenoid restricted movement of the cord to only one-half to two-thirds of the distance required to approximate the scar tissue on the left. As a result, the patient was aphonic. At that time, reconstructive surgery to improve vocal quality was not undertaken since it might compromise air entry into the larynx. The patient was decannulated uneventfully.

Five months postoperatively, some increased thickening of the left hemilarynx, and slightly more buildup of tissue in the false cord area was noted. The airway remained adequate, but narrow. The vocal cord did approximate the thickened left hemilarynx upon forced adduction, but no vocal production was apparent.

Voice Evaluation

In lieu of the reconstructive surgery alternative, the patient was referred to the Speech Pathology Unit for a voice evaluation and subsequent vocal rehabilitation. The following findings were present at the initial evaluation: audible exhalation and inhalation, rhythmical breathing movements with a diaphragmatic respiratory pattern, dyspnea which resulted in shortness of breath especially after walking short distances, and moderate throat clearing and coughing. Breath support for phonation could not be assessed due to absence of glottic closure and voice production. Conversational voice was aphonic with limited intensity (volume) and lack of pitch regulation; whispering was the only mode of spoken communication.

Vocal Rehabilitation

Several techniques were utilized to produce phonation. Initially, therapy for obtaining glottic closure involved using a "pushing technique." Using this method the patient performed extensive activities such as pushing on hard surfaces, lifting heavy objects, and performing isometric exercises while attempting to phonate. Coughing and throat clearing followed by prolonged vowel production were used to attempt closure. Also, the patient was asked to talk with voluntary straining, i.e., to "talk hard" with ab-

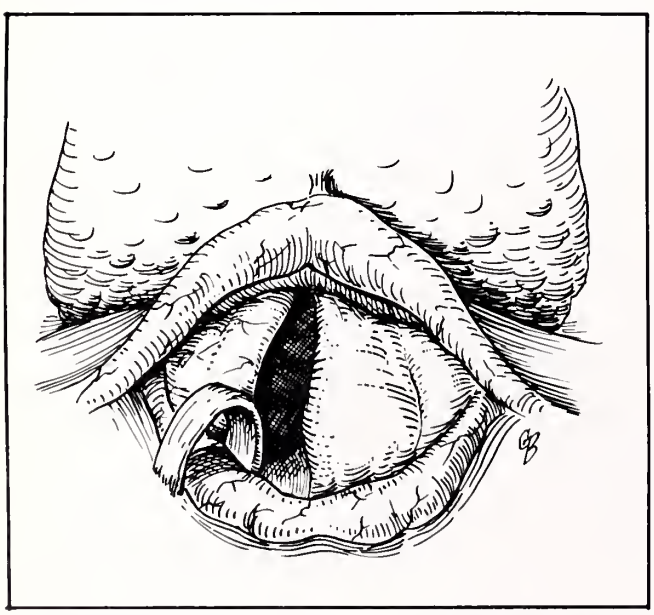


Fig. 1: Right cord evulsed from its anterior attachmant. Left cord is missing entirely and there is maceration from massive glottic and subglottic edema.

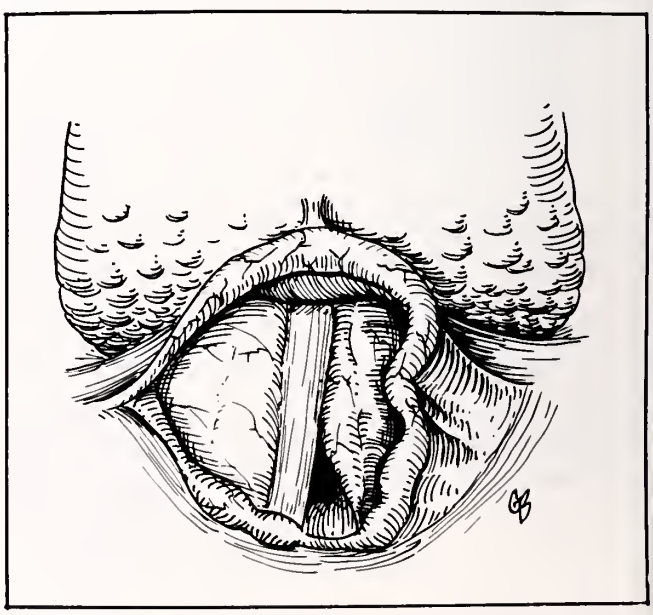


Fig. 2: Healed right cord after reconstruction. Soft tissue scar bands, both supraglottic and subglottic, are on the left. There is minimal airway.

dominal straining. Later, while noise consisting of a wide band of frequencies at intervals of one cps or less was played into earphones, the patient was instructed to speak over the noise. This increased airflow rate and laryngeal tension. These activities continued for over two months until some consistent vocal tone was produced.

Once vocal tone was achieved, continual humming was used to develop control over the musculature for consistent opening and closing of the altered mechanism. Once this was done, the next procedure was to expand the vocal tone into prolonged vocalization required for connected speech. Initially the patient could produce a vowel sound for only one or two seconds, due to air escape because he was not able to maintain continued tension in the glottis. To achieve consistent voluntary control for voicing, the patient was instructed to tense the laryngeal musculature, and prolong a vowel sound into a target word containing the vowel (e.g., e - eat). At first, the patient was able to produce only one word per air intake, but by utilizing this technique, he eventually mastered word lists of increasing complexity, so that 10 words could be produced in succession on one air supply. Gradually he produced phrases and sentences without (interruption of) air waste. These activities continued for six months, after which therapy involved improving the "new" voice.

Table. Postoperative Vocal Rehabilitation Program for a Laryngeal Trauma Patient

Treatment of Laryngeal Trauma	Progress	Time in Days
None	Aphonia	0
↓		
Pushing technique, throat clearing with attempted phonation, abdominal straining, vocalizing over noise	Glottic closure ane some vocal tone	60
↓		
Humming to induce muscular control	Lengthen vocal tone	30
↓		
Laryngeal tension accompanied by prolonged vowels and target words	Increased from one to ten words per air intake	60
↓		
Expansion of response length	Phrases and sentences	30
↓		
Improvement of new voice	Pitch range expansion, increased volume	60
↓		
Practical use of voice	Interacted orally in various situations	30

The final stages of therapy centered around increasing volume, expanding pitch range and using the voice in all speaking situations. The following techniques were used to effect these desirable changes. Volume was increased through instruction in diaphragmatic breathing. The patient learned to glide from a soft to a loud phonatory production through abdominal tension. Pitch range was expanded by voluntarily tensing the musculature to produce a high pitch and relaxing it to produce a low pitch. The patient was asked vocally to match varying notes and to glide from a high to low note voluntarily on one breath inspiration.

The new voicing was carried over into practical, everyday experiences. The patient was instructed to practice his new voice on the telephone, communicate with selected individuals, speak to a group and interact orally in other situations. This provided a good deal of psychological reinforcement that helped dissipate negative feelings the patient had regarding his vocal production.

After 11 months, the patient was discharged. At that time vocal quality was somewhat hoarse, but vocal tone was consistent. Sentences of varying lengths could easily be produced without air escape from the glottis. Intensity level was adequate in both quiet and noisy environments. Pitch range was restricted to about four notes. A summary of this vocal rehabilitation procedure is given in the Table.

DISCUSSION

Postoperative vocal rehabilitation of patients with laryngeal trauma involves a flexible regimen. If the patient is aphonic, the first step is to attempt glottic closure. To obtain the required closure, pushing exercises are used to increase loudness and develop vocal tone. The method initially was used to strengthen the soft palate but later was applied to patients with vocal cord paralysis.[3] This technique now is used on weak voices that result from unilateral cord paralysis, traumatic injury to the larynx, and bowing of the vocal cords.[4-6]

The therapy calls for the patient to perform an exertive exercise while phonating. The patient uses his upper extremities in a forceful pushing manner. The tension produced by these activities has been found to facilitate glottal closure. (This relatively firm glottal closure is observed nat-

urally in weight lifting that often is accompanied by primitive vocalizations.[6]) These exercises are only a conditioning approach for facilitating firmer glottic approximation that usually results in a louder, more resonant voice. After closure is attained, the patient is instructed to try to gain the same result through tension of the laryngeal musculature. Once this has been achieved, the exertive exercises are progressively reduced.

Several problems can exist even after closure has been attained. For example, difficulty may be experienced in maintaining voice throughout phrases. Some words may be forced while others deteriorate into a whisper. Exercises are usually initiated to coordinate respiratory effort with phonatory output. An increase in phonatory voicing time may also be necessary since there is a persistent tendency to produce speech with minimal breath support. Some patients can phonate for only two or three seconds; whereas, the normal phonatory length for vowel production is about 20 seconds. To compensate for this, the patient is instructed to use diaphragmatic breathing and to produce phrases of gradually increasing length.

Another common problem associated with this therapeutic approach is the tendency to phonate on inspiration.[7] This is discouraged since approximation on inspiration naturally obstructs the air passage and reduces the amount of inspired air, thereby reducing the quantity available for vocal production.

In summary, the initial therapy objective is to reduce the glottic opening so that closure is achieved, and, at the same time, produce good breath support that is necessary for adequate phonation. If incomplete glottic closure persists, breath lost during phonation results in the need to replenish the breath supply more frequently.

Once the patient produces vocal tone, sustains phonation, and can produce connected speech the next step is to increase loudness and develop pitch range flexibility. By exploring various pitch ranges, we attempt to locate the pitch level at which the patient is able to produce a louder voice. Often by elevating pitch, tension on the cords is increased, causing them to tighten. This tension serves to reduce air escape and is accompanied by a slight increase in loudness. The basic physiological mechanism underlying this is that at very low pitch levels, glottal resistance is dominant in controlling intensity, but as pitch levels rise, voice intensity is controlled almost entirely by air-flow rate.

The overall therapeutic approach illustrates that with close interaction of speech pathologist, physician and patient dramatic results can often be obtained in individuals who have had severe laryngeal trauma. This is all the more significant when specific surgical repair of the residual laryngeal defect is impossible or inadvisable. It serves to illustrate functional compensation for an anatomic defect. The only mitigating factor, however, is time. For the patient described above, the total postoperative surgical and vocal management period was 18 months.

References 1. Snow JB Jr: *Introduction to Otorhinolaryngology.* Chicago: Yearbook Medical Publishers, 1979, pp 163-165. 2. Lambert GF and McMurry GT: Laryngotracheal trauma: Recognition and management. *J Am Coll Emergency Physicians* 5:883-887, 1976. 3. Foreschels E, Kastein S, and Weiss DA: A method of therapy for paralytic conditions of the mechanisms of phonation, respiration, and glutination. *J Speech Hear Disord* 10:365-370, 1955. 4. Boone, DR: *The Voice and Voice Therapy.* Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1971. 5. Cooper M and Cooper MH: *Approaches to Vocal Rehabilitation.* Springfield, Illinois: Charles C. Thomas, 1977. 6. Greene MCL: *The Voice and Its Disorders.* New York, New York: Pitman Publishing Corporation, 1972. 7. Woodman DG, Pollack D: Bilateral abductor paralysis. The postoperative care and speech therapy following arytenoidectomy. *Laryngoscope* 60:832, 1950.

BARBARA M. BAKER, Ph.D.
GORDEN T. MCMURRY, M.D.

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1. Beeson-McDermott, Textbook of Medicine, 15th Ed 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.





Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochlonde, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8 – 5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10 – 20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq elemental potassium. The usual preventative dose of potassium 20 mEq per day while therapeutic doses range from 30 mEq 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) or TWIN are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by clinical observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a prescription.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the following ingredients:

Pentylenetetrazol	30
Niacin	50
Vitamin B-1	10
Vitamin B-2	5
Vitamin B-6	1
Vitamin B-12	3
Choline	100
Inositol	50
Manganese (as Manganese Sulfate)	1
Magnesium (as Magnesium Sulfate)	2
Zinc (as Zinc Sulfate)	1
Iron (as Ferric Pyrophosphate, Soluble)	99
Alcohol	

INDICATIONS AND USAGE: SU-TON contains pentylenetetra which may be helpful in the older patient as an analeptic as when mental confusion and memory defects are present. SU-T also contains vitamins, trace minerals, and iron, for those pati who may benefit by preventing the development of a deficie

CONTRAINDICATIONS: Epilepsy, convulsive disorders or kno history of sensitivity to any of the listed active ingredients.

WARNINGS: The safety of this preparation during pregnancy lactation has not been established. Use of this drug requires the physician evaluate the potential benefits of the drug aga any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contraindi tions to pentylenetetrazol, it should be used with caution epileptic patients or those known to have a low convul threshold or a focal brain lesion. Caution should be exerc when treating patients with high doses of SU-TON who have h disease. While pentylenetetrazol does not act directly on myocardium, the results from central vagal stimulation co cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high doses produce toxic symptoms typical of central nervous sys stimulants, which act on the higher motor centers and the sp cord. Convulsions resulting from this drug are spontaneous are not induced by external stimuli. They usually last for sev minutes and are followed by profound depression respiratory paralysis. Death has been reported from the inges of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been reported SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose ma due principally from overstimulation of the central ner system and from excessive vasodilatation with resul autonomic nervous system imbalance. The symptoms may inc the following: vomiting, agitation, tremors, hyperreflexia, sw ing, confusion, hallucinations, headache, hyperpy tachycardia. Treatment consists of appropriate suppo measures. If signs and symptoms are not too severe and patient is conscious, gastric evacuation may be accomplishe induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate ci tion and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (15 times a day 20-30 minutes before meals. This drug is not for children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-00

CAUTION: Federal law prohibits dispensing without a pre tion.

AP-001 5-80 Printed in U

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

First Class Permit No. 1563, Shreveport, LA.

Postage will be paid by addressee

BOOTS PHARMACEUTICALS, INC.

Department 0
6540 Line Avenue
Shreveport, LA. 71106

BOOTS PHARMACEUTICAL INC.

Shreveport, Louisiana 71106

Pioneers in medicine for the fa

Community Project in Pediatrics: An Effort to Influence Physician Distribution

JOHN P. HOWARD, M.D.

A project which had as its goals to persuade pediatric house officers to redistribute themselves in underserved areas of the Commonwealth of Kentucky to increase the number of pediatric residency positions and create an off-campus location for training is described. Results describe twelve resident physicians involved in this program and some problem areas which may arise in similar projects.

AMONG recent developments[1,2] in postgraduate medical education have been the attempts by state legislatures to directly influence medical manpower distribution within their boundaries. Some programs initiated by legislators try to induce medical students and resident physicians to remain within their respective states to practice medicine in "underserved areas" either rural or urban; such underserved areas, among other criteria, are those locales where there is a high patient population to physician ratio.[3] The average ratio of non-Federal primary care physicians to patient population in Kentucky is 1:1500.[4]

A study[5] published in 1960 implied that a prominent factor in the final determination of where physicians locate their practice is the site of their residency training, although multiple factors have been ascribed to this final choice in another study.[6] To correlate these factors, the Commonwealth of Kentucky has attempted to retain primary care physicians, *i.e.*, pediatricians, family practitioners, internists, general surgeons, obstetricians and psychiatrists, through different programs. The program which this paper will review was one entitled "Community Project in Pediatrics" sponsored through the Commonwealth's Council on Public Higher Education (AHES) (Area Health Education System) grants #538130, 538135, and 538176).

From the Department of Pediatrics, University of Louisville School of Medicine, Children's Hospital, Health Sciences Center, Louisville, Kentucky

Goals

The goals of this program established by the Council of Public Higher Education which featured the voluntary participation on the part of the resident physicians in the Department of Pediatrics at the Medical School of the University of Louisville were as follows:

1. To effect a better distribution of medical health manpower; 2. To increase the number of primary care residency positions in the state; 3. To create a potential location for training medical students from the Department of Pediatrics; and, 4. To provide a community experience for pediatric residents.

Methods

This program was budgeted on an annual basis for an amount that did not exceed $44,000.00. Funds were allocated for the annual compensation of one resident physician and included a "dislocation allowance," *i.e.* additional funds for room, board and travel. Other funds were

allocated for a faculty director, a community preceptor pediatrician and a secretary, but these funds were less than 20% of the fulltime compensation for each of these individuals. Finally, a small amount of funding was available for faculty members of the Department of Pediatrics to travel to the community site for lectures, rounds and conferences on an average of monthly visits.

The community site selected for this program was located at the Trover Clinic in Madisonville, Kentucky. Madisonville is a community of 15,332 people, 160 miles west of Louisville. Trover Clinic is a non-profit multi-specialty clinic group comprising over 65 physicians; and, the community preceptor was a board-certified pediatrician with an appointment as Assistant Clinical Professor in the Department of Pediatrics.

In order to evaluate various subjective aspects of this program, forms were completed anonymously by the resident physicians regarding their experience in the community under the guidance of the regional AHES coordinator; and, the residents were rated as to their capabilities by the preceptor. These forms were completed before and after the completion of the one month rotation. While on a monthly rotation, the resident worked in the preceptor's office as a physician and also made hospital rounds and participated in night calls. Also, there were quarterly and annual reports to the Commonwealth's Council on Public Higher Education made by the project director via the regional AHES coordinator for the Council.

The regional AHES coordinator is an individual who correlates educational efforts of the Council on Public Higher Education; these individuals also attempt to enhance their region's attractions in order to persuade students and residents to return for permanent relocation.

TABLE I

Results of surveys completed by House Officers after their community rotation.

	Excellent	Good	Fair	Poor
Quality of Health Care in Community	73%	27%	0	0
Clinical "Backup" Resources	82%	18%	0	0
Preceptor as Practitioner	91%	9%	0	0
Preceptor as Teacher	58%	42%	0	0
Guidance Given by University Faculty	11%	67%	11%	11%
Total Professional Educational Experience	45%	45%	0	10%

Results

Twelve second and third year pediatric house officers completed 13 monthly rotations during an interval of two years (one resident had two separate rotations); all were male. Results of the final surveys are listed in Table I. The 13 rotations represented 58.3% (14/24 months) of actual time involved in the project.

All the house officers rated as either good or excellent the quality of health care in the community, the clinical "backup" resources and the preceptor as both practitioner and teacher. In addition, guidance given by the University Faculty was rated in a similar favorable ranking by 78%, and the total professional educational experience was also rated favorably by 90% by the residents.

It should be noted in Table II that six of 12 (50%) are presently located in the Louisville metropolitan area; whereas, only one (8%) was originally from this city of 361,706 people. However, three participants (25%) are presently located in their hometown; these were from a community of less than 12,000, one of 12,000 - 40,000 and the one from Louisville. Due to the anonymity of the responses one could not correlate questionnaire answers with outcome.

As to their dislikes, 82% of the responding house officers disliked being away from their families; 64% disliked the lack of social and recreational opportunities; 55% disliked the housing situation and food; 27% disliked being isolated from other residents; 18% thought there was lack

TABLE II

Site of Origin of Residents by Population

	A12,000	12,000-40,000	40,000-100,000	100,000-500,000	A500,000
Hometown	4	3	1	2	2
Present Practice Site	3	2	0	7	0

of guidance from the University faculty and 9% disliked the educational experience itself and the unavailability of instruction.

It must be noted that the total number of residency positions in the Department's program was increased by one, and an excellent community experience was provided for the house officers.

Finally, 45% of the responding house officers had a more favorable attitude toward practicing in a small town of predominantly rural area after their experience. Another 45% expressed no change in their already favorable attitude, while 10% persisted in an unfavorable attitude.

Discussion

Although medical manpower distribution has not as yet been realized, other programs are in progress with this same long-term goal. There would appear to be no basic shift back to a less urban area on the part of the house officers if one assesses their hometown and their current practice location.

Housing was the major problem during the first year of the project, but this was expedited by the Trover Clinic Foundation which provided an off-site apartment for the use of the residents and their families. Moreover, the Commonwealth provided housing in its community college dormitory during the second year. Still, it was difficult or impractical for those with working spouses to have their spouse leave their employment for such a prolonged duration of time. The cultural and social limitations noted by the house officers were similarly noted in a prior study[7] involving practicing physicians.

A potential location for off-site training was already in existence, *i.e.,* the Trover Clinic; but the additional experience of having faculty from the Department of Pediatrics visiting this site for conferences, lectures and rounds, although at times difficult to implement, proved mutually satisfactory. Additionally, a valuable experience was gained by the Department's staff in implementing subsequent and similar programs for house officers and medical students.

Another interesting development was some degree of discord between the clinic and the Department of Pediatrics. This development resulted from the inability of the Department to fulfill its obligations to attract more house officers for the community health rotation. However, a spirit of harmony did increase with the joint efforts of the regional AHES coordinator and the medical director of the Trover Clinic to obtain the use of the local community college's dormitory facility for the house officers. Also, increased interpersonal contacts between them and the project director enhanced harmony.

This program with direct contact between preceptor, regional coordinator and faculty project director did enhance the experience of the house officers by attempting and succeeding in some instances to alleviate or mitigate problems.

Reports from the preceptor regarding the performance of house officers closely correlated with the opinions of the Department's faculty.

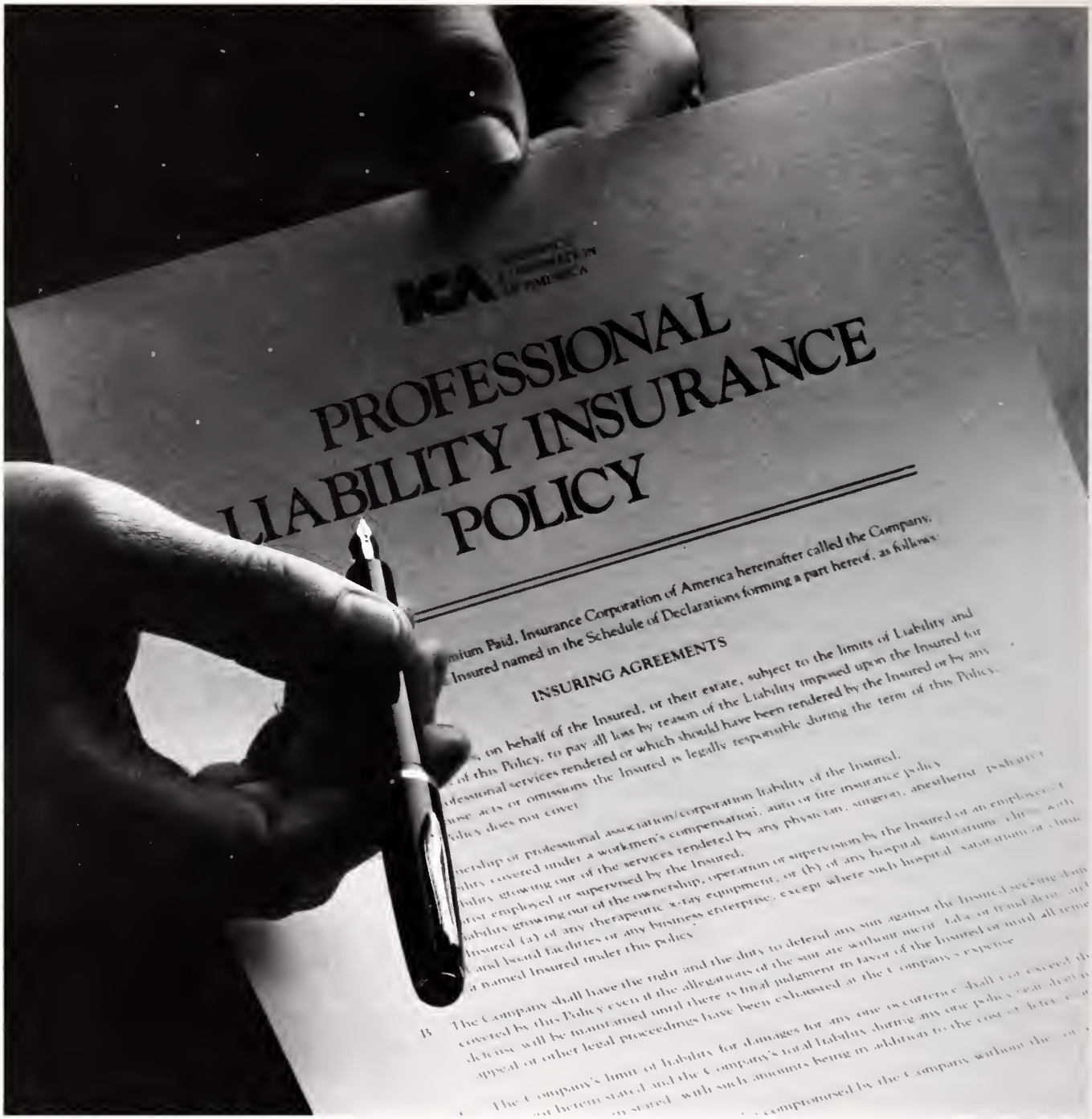
Lest this be adjudged a chauvinistic project, female house officers have been available in subsequent programs for rotation at this and other preceptor sites.

Finally, although there has been no migration of physicians to underserved areas, efforts on a non-voluntary basis have been pursued to induce them through governmental appropriations.

Conclusions

Of the 75% of the house officers involved in this project, who were originally from towns and cities of less than 100,000 population, only 42% still reside in similar locations. The rating of the community experience was excellent or good in all instances by the pediatric residents. However, absence from their families, lack of social and recreational opportunities and poor housing and food accounted for more than 50% of the house officers dislikes. The total number of pediatric residency positions in the state was increased by one.

References 1. Checker A: State Funding for Targeted Programs in Graduate Medical Education. *J Med Educ* 49:620-622, 1974. 2. Kobernick R, WAMI: A Decentralized Medical Education Program in Washington, Alaska, Montana, and Idaho. *Public Health Rep* 90:308-312, 1975. 3. Federal Register: September 2, 1975. 40: 40315-40320 4. Health Resources Statistics, Health Manpower and Health Facilities, 1974. National Center for Health Statistics, *US Gov Print Off,* Washington, D.C., 1974 5. Weiskotten HG, WS Wiggins, ME Altenderfer, M Gooch and A Tipner. Trends in Medical Practice: An Analysis of the Distribution and Characteristics of Medical College Graduates, 1915-1950. *J Med Educ* 35:1071-1121, 1960. 6. Held PJ: The Migration of the 1955-65 Graduates of American Medical Schools, (Research Report) Berkeley, California: Univ. California, 1973 7. Bible BL, Physician's Views of Medical Practice in Nonmetropolitan Communities. *Public Health Rep* 85:11-17, 1970.



PUT A CONTRACT OUT ON FRIVOLOUS CLAIMS.

Frivolous claims can be a nightmare. Especially if your malpractice insurance company doesn't stand by you. And unfortunately, all too many don't.

For instance, most malpractice insurance policies give you no say in whether to fight or settle a claim. And if you do have a say, you can be hit with a costly penalty for going to court. Another thing. Many companies don't pay all legal expenses. And most companies seldom use lawyers to process cases. Claims are often handled only by claims adjusters.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working for doctors. So we know the strong coverage and knowledgeable service physicians need from their liability insurance. And since we specialize in this one field, we can offer a superior policy for a realistic premium. Premiums based on actual costs in your state.

So select the policy with the protection you need. Put a contract out on frivolous claims. For more information contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas Phone 1-800-231-2615

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

Letter to the Editor

IN June one of our very distinguished young editors, Stephen Z. Smith, published an excellent editorial concerning cost containment efforts. He advised that testing in the clinical laboratory and radiology domain should not be used as a refuge from a meticulous history and thoughtful, careful physical examination. In making his point he cited a condition which is notoriously elusive from clarification in the laboratory or x-ray department and frustratingly drives us to depend on the history as the only possible source of information, urticaria.

Urticaria is a nice history disease. Appendicitis is a superior physical examination disease. Hemolytic anemia needs a laboratory. Peptic ulcer requires the judicious use of x-ray; the history and the x-ray are so discoordinate that the treating physician needs the test to treat properly.

Spending money on health (illness) is developing a bad image. But we should take care to use and protect the remarkable, important scientific advantages that we have been able to produce in a former climate of investigational enthusiasm. A current example is the CT Scan.

The CT Scan technology was breathtakingly, and is now impressively, expensive. It was a Jules Verne solution to problems as yet unknown. When one thinks of the endless, stained, preserved cross sections of bodies in the anatomy department he wonders how the radiologists could have come to grips with CT Scan interpretation as well as they have, as soon as they have. Still the procedure remains a test, not a consultation. That it was controlled and regulated by agency at first may have been appropriate. Since then the procedure has developed distinction by proving its usefulness.

Despite the rapid establishment of its important niche in neurology and neurosurgery and the developing importance in abdominal disease the CT Scan remains regulated because of its substantial cost. This results in too few hospitals being equipped with an instrument which is needed frequently and urgently by patients on location. The regulation results in the keystone cop crisscrossing of all territories by those grotesque, lighted, orange and blue trucks with **Patient Transporter** written inside out on the front after a wait of four days, costing $100 a day, for the schedule.

This is done in the name of cost containment, the achievement of which is not certainly demonstrated. Let us be conscientious in our use of testing. But let us do our best for the patient.

AEO

EVERYBODY NEEDS A BACKUP!

In sports there are subs; most businessmen have assistants; corporations have vice-presidents.

As an independent professional there's not always a person to do this job for you.

We've been backing up professionals in Kentucky since 1939 with disability insurance protection when they are sick or when they have had an accident.

WE WOULD LIKE TO BE YOUR BACK-UP!

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

From the Files of the KMA Maternal Mortality Study Committee

Edited by John W. Greene, Jr., M.D.

MATERNAL MORTALITY

THIS 42-year-old, black, gravida 13, para 12, was admitted to a 385-bed teaching hospital the morning of 10-13-77 complaining of vaginal bleeding.

Physical Examination: This was an obese, elderly, black female in no acute distress. Her vital signs were stable. Lungs were clear. The abdomen contained a gravid uterus approximately term size that was not tender and without contractions. There was a small amount of blood on the perineum and the vagina had multiple clots. A vaginal exam was not done.

Lab Data: Hemoglobin 10.4; SMA-6 was within normal limits; Rubella titer was 1:32; blood type was 0-negative.

The patient was monitored in labor and delivery for approximately three hours without having any signs of further vaginal bleeding; however, at 0700 on 10-13-77 the patient began passing a large amount of vaginal clots amounting to 6 to 700 ccs. Fetal heart tones remained stable at 130 without decelerations. A tentative diagnosis of placenta previa was made and the patient was taken directly to the OR where she was examined and found to have a vagina full of clots without presenting part palpable. The patient was given general anesthesia and a classical cesarean section was performed with delivery of a viable, term female weighing 7 lbs., 10 ozs. with Apgars of five to one minute and nine at five minutes. The uterus was closed with 0-chromic suture in an interrupted fashion. A bilateral partial salpingectomy was performed and the abdomen was closed with 0-Tevdek Tom Jones buried retention type suture. The estimated blood loss at the time of surgery was 500 ccs. The patient received one unit of packed red blood cells furing the operation and another unit of packed red blood cells in the RR. Hemoglobin was 10.4 postoperatively. The patient remained stable the morning of her first postoperative day and was afebrile. Her lungs were clear; abdomen soft. There was a moderate amount of lochia and the patient was placed on Methergine 0.2 mgs. every six hours. The evening of the first postoperative day, the patient was afebrile. The patient was ambulating with the aid of two nurses on the first postoperative day at approximately 2100 hours when she suddenly fainted.

She was taken back to bed. At this time a code 900 was called. The patient became unresponsive and resuscitation attempt lasted approximately 45 minutes. This consisted of external cardiac massage, intracardiac epinephrine, several episodes of defibrillation and an attempt at a transvenous pacemaker. All of the resuscitation attempts were unsuccessful and she was pronounced dead at 10:20 p.m., 10-14-77.

An autopsy was obtained: The cause of death: Bilateral central pulmonary emboli.

Discussion

This case was classified as a direct obstetrical, nonpreventable death by the Maternal Mortality Committee. It is emphasized that proper family planning in this gravida 13 would have prevented this maternal death. A woman of this age having her 13th child is certainly a candidate for a vascular accident. The incidence of fatal pulmonary emboli in the immediate postpartum period has been estimated to be one to 10,000 to one in 50,000 pregnancies. The overall incidence of pulmonary embolism varies widely from one in 2,700 deliveries to less than one in 7,000 deliveries. Dolen and Dexter[1] have given a succinct account of this complication and include a tabulation of tests to evaluate the patient when the entity is suspected.

1. Dalen, J.E., and Dexter, L. Pulmonary Embolism, *JAMA* 207:1505, 1969.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

Quinamm™

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

Merrell

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®



R 3305 (Y371A)

for Knotts in the night



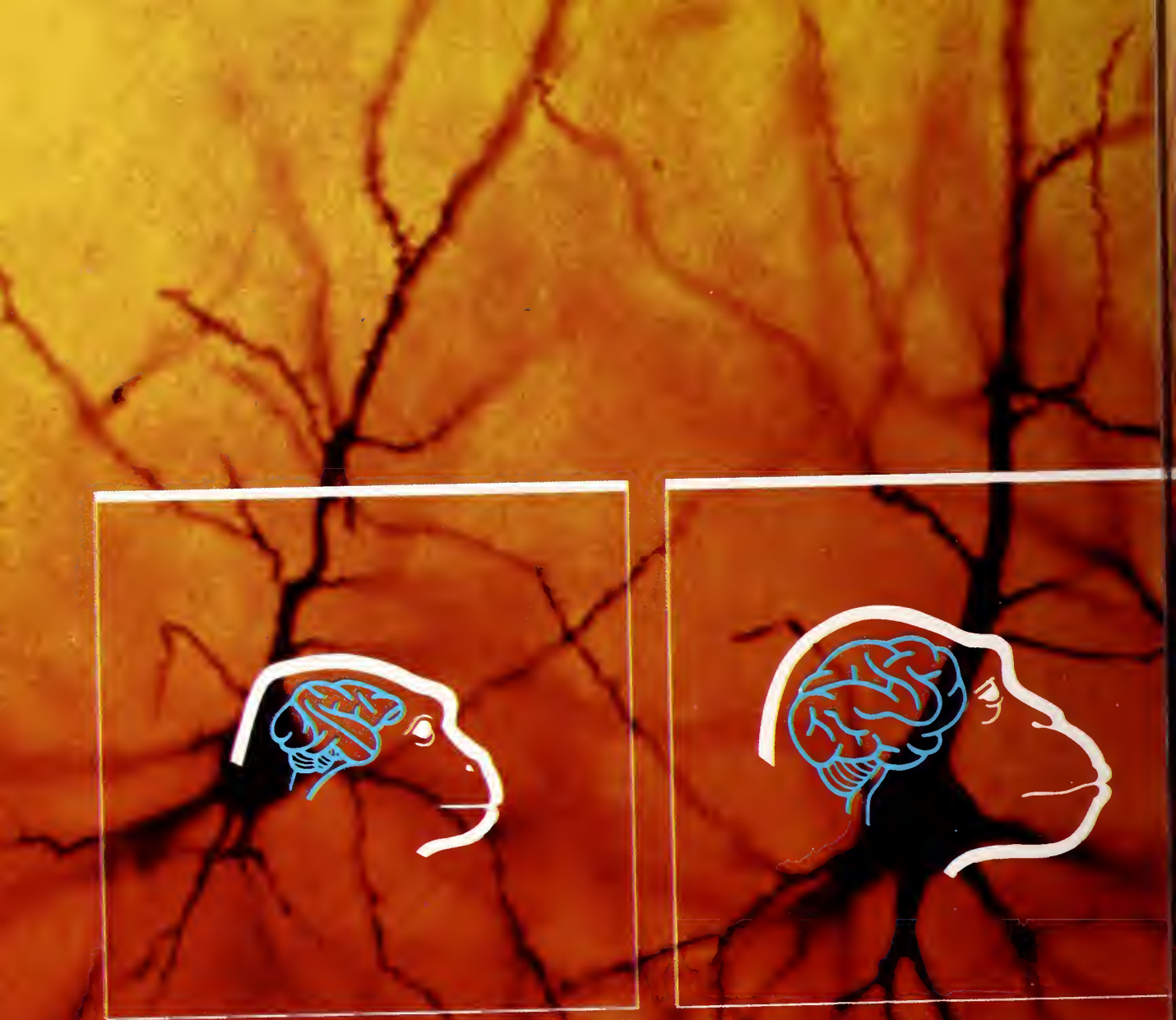
Quinamm™

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

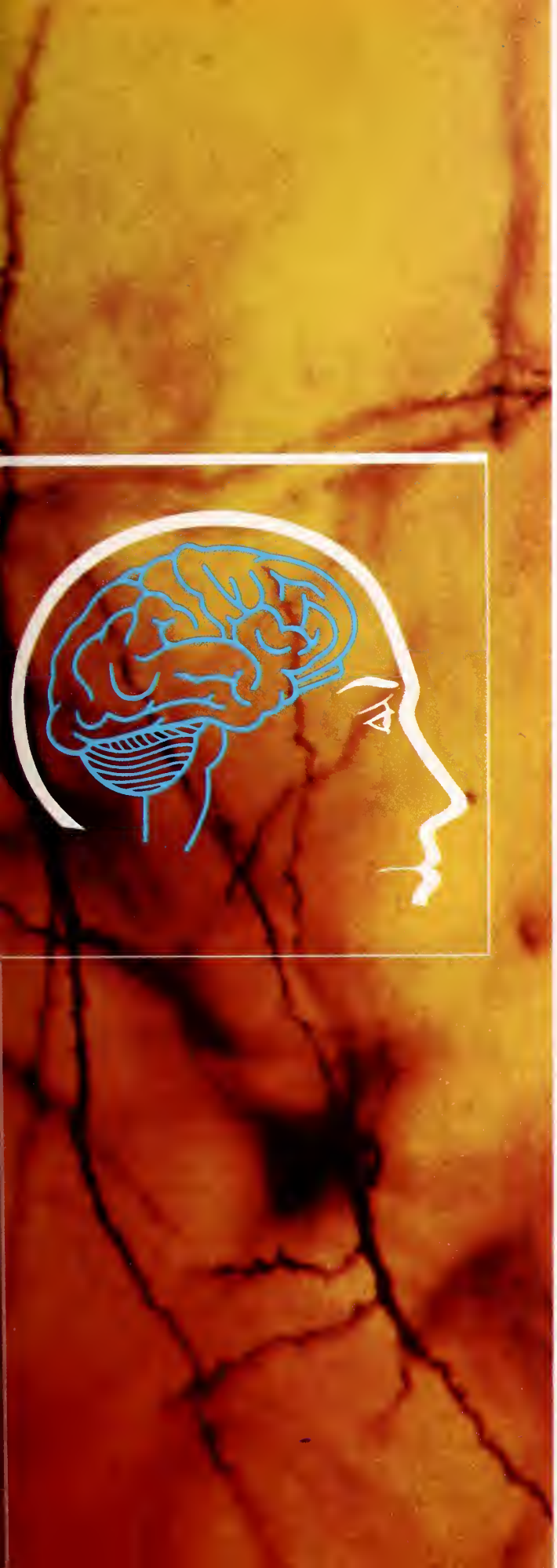
specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.



Golgi-stained neurons from the brain of a monkey.



Pharmacology Recapitulates Phylogeny

Recently discovered binding sites in the brains of primates and other vertebrates displaying high affinity for benzodiazepines have stimulated the search for an endogenous substance which may interact at these same binding sites and may also have anxiolytic properties.

While the search continues for a naturally produced anxiolytic, you can rely on Librium for predictable patient response in the treatment of anxiety.

Librium®IV
chlordiazepoxide HCl/Roche
5mg, 10mg, 25mg capsules

The origin of the species

ROCHE

Please see next page for summary of product information

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported

> *Usage in Pregnancy:* **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

ROCHE

Roche Products, Inc.
Manati Puerto Rico 00701



Lung cancer is now an equal opportunity tragedy.

Remember when lung cancer was a man's disease. Because men had been smoking longer than women. But the women's smoking boom that started in the 1930's and 40's—is paying most cruel dividends today. Yet most people still think lung cancer is a man's disease. Tell your female patients the true story. That lung cancer is now an equal opportunity tragedy. That's what "you've come a long way, baby" is all about.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office on Smoking and Health
Public Health Service Rockville, MD 28057

Stephen Z. Smith, M.D.
Assistant Scientific Editor

Review of Medical Microbiology

E. Jawetz, J.L. Melnick and E.A. Adelberg, Lange Medical Publications, 1980, 14th edition, 593 pages

The current edition of *Review of Medical Microbiology* perpetuates the biannual tradition of updating this dynamic field. The bibliographies are modern and have obtainable contents. An easily discernible introduction of new discoveries is couched in the familiar surroundings of classical microbiology teachings. Pictures of adequate and fairly clear quality are scattered among information-packed paragraphs. Tables and graphs are clarifying and seem to avoid pitfalls of too much data or too few directives. Freehand illustrations are a compromise for the more accurate, yet poorly reproduced, photomicroscopic reality.

The book is meant for the student of microbiology, either in direct response to required competence in basic science, or those in ancillary medical fields. It is too superficial to be that useful at the researcher's bench, yet too intricate and fundamental for a handbook at the clinician's side. Fully one third of the book meets criteria for basic science review in great detail.

Disregarding the clinical popularity, some bacteria are granted equal footing with more obscure, but well studied non-bacteria. As usual, mycology takes a back seat to its more illustrious cousins—bacteria and viruses—in the microbiology family. Doctor Jawetz's long career interest in viral research fostered a well-endowed part of the book, as expected.

Brief mention is made of procedural matters such as ascertainment of specimens, precautions in handling, potential pathogens, isolation techniques and recognition of what one has found.

The clinician will find this book of limited value. His quest for review and modernization of his basic microbiology will, however, be adequately met. The student will gather this book from the shelf with glee. Its nearly 600 pages are packed with the grist of what they are expected to know.

Handbook of Obstetrics & Gynecology

Ralph C. Benson, Lange Medical Publications, 1980, 808 pages

Packed in this recent handbook is a distilled view of both obstetrics and gynecology. This is definitely a clinical book meant for the practitioner in the field. With the advent of paramedical care and the concomitant assumption of an active role of midwifery, nurses, students, etc. there is a definite need for a concise yet inclusive affordable condensation of this large field.

Anatomy occupies the introductory section and despite brevity the written and pictorial description is more than adequate. Understandably the subtleties of the physical examination are neglected but probably there is no substitute in a learning process for direct patient examination.

Obstetrical medicine is presented somewhat disjointed. From prenatal care, the reader rapidly completes labor and delivery chapters producing an out of place description of the infant. Then, complications of the prenatal, delivery and postnatal care are presented. The relevance would be more apparent and the warning signs more adamant if these discussions were juxtaposed.

Almost appended to the conclusion of the obstetrics section, the chapters on the emotional aspects of pregnancy and home delivery care are too brief and void of practical detail to be of use mechanically and will be deleted by most practitioners.

The second section encompasses gynecology in an anatomic pathology approach. Disease of each major structure are described, laboratory aids recalled and treatment outlined. Obviously the controversies in

treatment are avoided and the therapeutic spectrum narrowed by the lone author approach, but certainly the style and teaching aspect are enhanced. The burgeoning reproductive medical field is introduced, tantalizing the reader to undertake an updating of his knowledge. As a tool for handling these complicated problems, this book is inadequate both in content and depth.

Under the prejudiced rubric of "Psychosomatic Gynecology and other Tension Problems," a superficial cookbook approach would be better forgotten than followed.

A picturesque finale summarized operative gynecology. Remarkably good black and white illustrations give the reader a surgical amphitheater view of these procedures.

The miniaturized printed index requires close scrutiny but is very complete and handy.

All fields deal with female medicine and such a handbook makes "keeping up" a less oppressive chore.

Current Pediatric Diagnosis & Treatment

C. Henry Kempe, Henry K. Silver and Donough O'Brien, Lange Medical Publications, 1980, sixth edition, 1122 pages

CURRENT PEDIATRIC DIAGNOSIS & TREATMENT carries on the tradition of a useful paperback, inexpensive textbook of pediatric medicine. In contrast to its handbook mate this work is completely capsulized and referential. As such careful study of its contents will more than suffice our continuing medical education goals.

The spectrum of pediatrics lacks clear definition and the inclusion of material germane to "young people" might be challenged by the ever youthful American public. Nevertheless, a glance through the 38 chapters will entice the reader to start and rapidly he will find a tremendous store of update medicine. Clearly, such classical chapters as the Pediatric physical examination; Neonatal, Formative, and Adolescent Landmarks; Metabolism and Pharmacology are granted introductory and climactic status. Sandwiched between them, the body of the book is dedicated to both an anatomic and subsequent pathologic presentation of pediatric medicine. Structure and function of major organ systems is complemented by any significant contrast from adult medicine. Specialists are admirably represented although some continuity in style and form is sacrificed by their inclusion. Perhaps this segment was included with the purpose of abetting the primary care movement in pediatrics. Extensive discussion of more specific disease entities follows in an encyclopedic fashion. The more than 30 pages of indexing these chapters makes them utilitarian for the practitioner and the consumable frenzied, exam-threatened reader. For those of us divorced from the mainstream of pediatric practice the regular issuance of dosages appropriate for the younger population is appreciated. Poisoning and trauma are given due respect since we are at times confronted with emergency care delivery.

The clear printing, explicit tables, handy size, and affordable price are even more incentive to take this book as part of a multipurpose medical library.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

AS CLOSE AS A CLASSIC CAN COME TO THE FUTURE.

Aspirin and codeine. Classic agents whose respective roles in medicine continue to be developed. Empirin® c̄ Codeine. An impressive history and an important future.

EMPIRIN® c̄ CODEINE

Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: No. 2—15 mg, No. 3—30 mg, and No. 4—60 mg. (Warning—may be habit-forming.)



ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

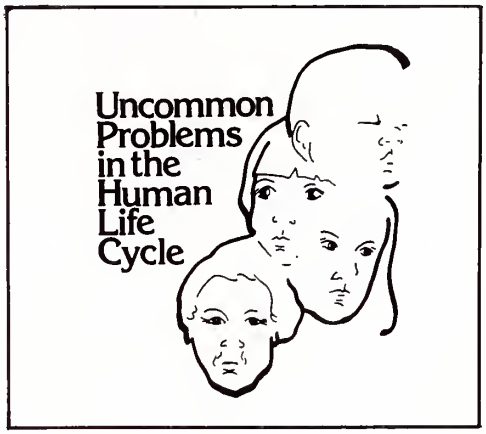
Scientific Sessions Will Highlight 1980 KMA Annual Meeting

"Uncommon Problems in the Human Life Cycle" is this year's theme of the KMA Annual Meeting. Medical authorities from across the nation will discuss topics on "Birth, Infancy and Childhood," "Adolescence to Adulthood," "Middle Age" and "The Aging Patient" during the general scientific sessions, September 23, 24 and 25.

The Meeting opens officially on Monday, September 22, when the House of Delegates meets at 9 a.m. in the Julia Belle room of the Convention Center. A second meeting of the House will be held on Wednesday, September 24, at 6 p.m. also in the Julia Belle room.

Twenty-one specialty groups will meet on Tuesday afternoon, September 23 and Thursday afternoon, September 25.

President of the American Medical Association, Robert B. Hunter, M.D., will be the featured speaker at the President's Luncheon, scheduled for 11:50 a.m., Wednesday, September 24. In addition, there will be an awards ceremony and the installation of the KMA President, Frank R. Pitzer, M.D.



Other events during this year's Annual Meeting include the KEMPAC Seminar, alumni reunions of the U of L and UK medical schools and a "Fun Run" sponsored by the Auxiliary to KMA.

Complete details of the 1980 Annual Meeting appeared in the August *Journal of KMA*.

How's Your Cost Consciousness?

SEPTEMBER—Attempts should be made to improve communication between physicians, their staffs and their patients so that the patients will have better understanding regarding a physician's decision not to hospitalize the patient. This will also allay fears that the physician might not be available in the event a patient's condition deteriorates and hospitalization becomes necessary.

The best "defensive medicine" is a sound doctor/patient relationship. Be available when they need you; listen to them when they talk to you; be polite to them and explain to them their diagnoses and your decisions and programs of therapy. The best patient care will occur when the physician cares about his patient.

Booklet Answers Patient's Questions on Health Insurance

Discussion by KMA's Committee on Medical Insurance and Prepayment Plans has indicated that many patients are not familiar with coverages their health insurance offers and are often not aware of alternative coverages. The booklet, "Let's Talk About Health Insurance," addresses insurance and the Committee feels its availability in doctors' offices would be helpful to patients. They are available from the American Medical Association, Department of Health Care Delivery; 10 or less, 30¢ each, 11 or more, 20¢ each.

Reference Committee Activity

Speaker Bennett L. Crowder, II, M.D., Hopkinsville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 22. **Briefing sessions** for Reference Committee Chairmen will be held at **12:30 p.m., Monday,** in the Delta Queen Room in the Bluegrass Convention Center. Any KMA member wishing to testify on any resolution or report is urged to be present for the **Reference Committee meetings** which will be held at **2:00 p.m., Monday, September 22,** in the Bluegrass Convention Center. These open sessions will last one hour, in order for all who wish to speak to be heard. Following the open hearings, the Committees will go into executive session to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final session of the House, Wednesday evening, September 24. Both sessions of the House will be held in the Julia Belle Room in the Bluegrass Convention Center.

1980 KMA Reference Committee Appointments

REFERENCE COMMITTEE NO. 1

Cincinnati Room

Willis P. McKee, M.D., Shelbyville, Chairman
R. Kendall Brown, M.D., Georgetown
E. Dean Canan, M.D., Louisville
C. Kenneth Peters, M.D., Jeffersontown
R. John Sanders, M.D., Owensboro

REFERENCE COMMITTEE NO. 2

Island Queen-Idlewild Rooms

John W. Kraus, M.D., Paducah, Chairman
David L. Douglas, M.D., Frankfort
Veryl Frye, M.D., Somerset
Van R. Jenkins, M.D., Lexington
Roy J. Mecklar, M.D., Louisville

REFERENCE COMMITTEE NO. 3

Majestic-New Orleans Rooms

James P. Moss, M.D., Louisville, Chairman
Don E. Cloys, M.D., Richmond
Millard C. Loy, M.D., Columbia
N. H. Talley, M.D., Princeton
John E. Trevey, M.D., Lexington

REFERENCE COMMITTEE NO. 4.

Grand Republic Room

Peter P. Bosomworth, M.D., Lexington, Chairman
Walter L. Cawood, M.D., Ashland
William B. Monnig, M.D., Erlanger
C. Ray Potts, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green

REFERENCE COMMITTEE NO. 5

Mississippi Queen Room

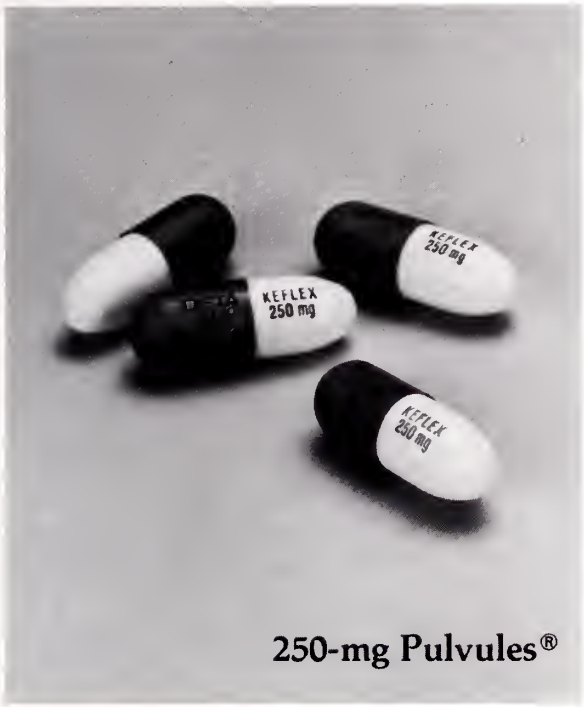
Fred A. Stine, M.D., Highland Heights, Chairman
Keith E. Ellis, M.D., Benton
Walter I. Hume, Jr., M.D., Louisville
Edwin J. Nighbert, M.D., Lexington
R. D. Pitman, M.D., Williamsburg

REFERENCE COMMITTEE NO. 6

Natchez Room

Edward N. Maxwell, M.D., Louisville, Chairman
William E. Becknell, M.D., Manchester
James S. Brashear, M.D., Central City
Harold T. Faulconer, M.D., Lexington
William B. Hamilton, M.D., Shepherdsville

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®
cephalexin

Additional information available
to the profession on request.

DISTA
000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Plan To Attend The 18th Annual KEMPAC Seminar-Banquet

Monday, September 22, 1980

6:00 p.m. EDT—Reception

7:00 p.m.—Dinner with program following

The Democratic and Republican candidates for the U.S. Senate from Kentucky have been invited to speak.

Julia Belle Room
Ramada Inn
Bluegrass Convention Center
Louisville, Kentucky

Brief Summary of Prescribing Information

Indications and Usage: Symptomatic relief of anxiety, tension, agitation, irritability and insomnia associated with anxiety neuroses and transient situational disturbances; anxiety associated with depressive symptoms and as a treatment of symptoms of anxiety if such symptoms are a significant feature of functional or organic disorders, particularly gastrointestinal or cardiovascular

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients on lorazepam not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence. Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation.

Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions.

Observe usual precautions with impaired renal or hepatic function.

Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component.

Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (approximately 6 times the maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatric patients requires caution and frequent monitoring for symptoms of upper G.I. disease.

Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug.

In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind that multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring of vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® (IV) for (lorazepam) Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

Wyeth Laboratories
Philadelphia, PA 19101

Copyright © 1979, Wyeth Laboratories
Div. of AHPC, N.Y., N.Y. All rights reserved

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

Ativan® (lorazepam) for Anxiety



If the shoe fits...

Like millions of other Americans, you probably have an outmoded impression of what physical education is all about. It's not your fault, but unless we can bring you up to date about the *new* physical education it could prevent a lot of young people from getting the kind of programs they deserve.

Find out more about the new physical education . . . how it works to provide lifetime benefits for every single child. Send the coupon below for a free copy of our pamphlet, "What Every Parent Should Know About The New Physical Education."

Please send me a copy of "What Every Parent Should Know About The New Physical Education."

Name _____

Street _____

City _____ State _____ Zip _____

pepe

Physical Education Public Information
American Alliance for Health,
Physical Education & Recreation
1201 16th Street, N.W., Washington, D.C. 20036

ACTIONS OF AMA HOUSE OF DELEGATES

At the July meeting of the AMA House of Delegates, a number of issues were considered that are of concern to the membership. The KMA Delegates to the AMA have asked that material on three topics acted on by the AMA be printed here for your information.

Principles of Medical Ethics

Revised *Principles of Medical Ethics* were adopted. This action was the culmination of over two years of study and discussion by an Ad Hoc Committee of the AMA, AMA Delegates and state and county medical societies, including KMA. KMA's delegation to the AMA asked that information on this recent action be furnished to the membership. The following edited discussion on the issue was offered by an AMA spokesman and is accompanied by the revised Principles as adopted.

The Principles of Medical Ethics were revised so that medicine could keep in step with the times. The language needed to be modernized, reference to gender needed to be eliminated and contemporary society expects different things from physicians today than it did in 1957. The revised Principles of Medical Ethnics reflect a response to social reality.

The revised Principles of Medical Ethics do not create new "policy."

The fundamental moral concepts that have guided physicians in their professional behavior toward patients, colleagues, other health care professionals and society are incorporated in the revised Principles of Medical Ethics. The language is simpler and the statements are broader, perhaps, but the primary difference is that the revised Principles restate clearly existing policy on physician advertising and solicitation and the relationship of physicians and limited practitioners such as chiropractors.

Under the AMA Bylaws, the Principles of Medical Ethics may be amended only after introduction at one meeting and a two-thirds vote of the House of Delegates at the next. The House of Delegates adopted the revised Principles with 11 votes more than the required two-thirds majority.

The House action has been interpreted by some newspaper, radio and television reports as a declaration that the AMA has now decided to allow physicians to advertise and permit members to refer patients to chiropractors. Other reports have indicated that the revised Principles were adopted to avoid legal problems—because of pressure from the Federal Trade Commission and the antitrust suits filed by and on behalf of chiropractors.

These interpretations of the House action are erroneous. A physician's freedom to advertise or to associate professionally with whomever he or she chooses remains unchanged by the House action. Physicians are free to advertise their services. They have always had freedom to provide the public with adequate and honest information that will be useful in the selection of a physician.

The word solicitation in the 1957 Principles of Medical Ethics has caused confusion in the discussion of physician advertising. The AMA defines solicitation as the use of misleading and deceptive statements, unsubstantiated testimonials and exaggerated claims of successful cures. The policy of the AMA on solicitation is unchanged and the revised Principles buttress this position.

The revised Principles provide that a "physician shall . . . be free to choose . . . with whom to associate." Again, this statement buttresses the existing position of the AMA that a physician may decide for himself or herself from whom to accept referrals and to whom to refer patients. The 1957 Principles did not proscribe the individual physician's freedom to choose, but any confusion is now removed.

These remarks were made during testimony preceding the House vote: "Looking at history, there is no question that medical ethics, can, should and do change and with the heightening pressure upon the Association, there is fairly general agreement that some change once again is necessary . . .

In trying to reach an appropriate stance between professional principles and social reality the goal was to produce standards, not rules. Standards that would maximize individual accountability . . . Standards that would emphasize multiple responsibilities and right, (but) broad enough to withstand future changes in the professional society . . ."

Specifically, these principles are "seven positive statements . . . emphasizing the dedication to, and the primacy of, the patient, yet at the same time, recogniz-

ing social reality. They emphasize individual, not collective, responsibility. They use for the first time the word Honest . . ."

In presenting their report, the Ad Hoc Committee stated that these Principles:

- accurately reflect a proper contemporary ethical stance for the profession . . .
- are acceptable to a significant portion of the profession . . .
- conform to present legal requirements . . .
- are a firm foundation upon which interpretations and expansions can be built, and can withstand further changes within the profession and society . . .
- are strong and patient-oriented. . . .

In summary, the difference between the old set of Principles and the newly adopted set is wording. The basic concept of the former set is incorporated into the new. The new set of Principles is worded more precisely to reflect the policy of the AMA.

The exact wording of the newly adopted Principles of Medical Ethics is attached.

(James S. Todd, M.D., Chairman, Ad Hoc Committee on the Principles of Medical Ethics, has said that he or any member of this Committee is available to meet with leadership and staff of county, state and specialty societies to discuss the new Principles of Medical Ethics.)

Principles Of Medical Ethics

Preamble: The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

Physician Reimbursement

The Delegates considered the issue of physician reimbursement methods with a focus on service charge definitions and the Medicare program. The core of the discussion centered on Report F of the AMA Council on Medical Service which was adopted and is excerpted and paraphrased here.

Report F reiterated the support of the AMA for the usual customary and reasonable fee concept and noted the differences between the UCR method of charges and those recognized by Medicare.

The report stated that . . .

The Council on Medical Service has discussed the subject of physician reimbursement with officials of the Health Care Financing Administration on a number of occasions over the past year, and is aware that the following alternatives or changes in present reimbursement methods under Medicare are being considered:

1. Introducing legislation to replace the CPR charge system with statewide and perhaps national fee schedules;
2. Modifying current regulations so as to pay all physicians at the same rate for a given procedure regardless of the physician's specialty;
3. Introducing legislation to change present claim-by-claim assignment methods to either an all-or-none or a mandatory assignment system.

Such changes are being explored, according to HCFA officials, in response to a number of specific concerns with the present reimbursement system expressed by some health economists and government researchers. The remainder of this report analyzes these concerns, or claimed deficiencies, and concludes with recommendations based on that analysis.

In considering Report F the Delegates adopted the report of the Reference Committee that contained a discussion of charging definitions which follows:

"Currently, physicians providing service to Medicare beneficiaries are reimbursed on what is termed by DHHS a 'customary, prevailing and reasonable' (CPR) charge basis. Medicare pays 80% of its defined 'reasonable charge' for covered physicians' services to beneficiaries which are billed on a fee-for-service basis, after an annual deductible which is paid by the beneficiary. CPR reimbursement under Medicare and the 'usual and customary or reasonable' concept supported by AMA are similar methods of determining physician reimbursement—in principle—in that the amount of payment under both is derived basically from the actual charges made by physicians.

However, the two concepts differ in several important respects.

"They differ, first, in their definition of 'reasonable charge'. Medicare defines a 'reasonable charge' as the lowest of:

1) the actual charge made by the physician rendering the service;
2) the physician's 'customary charge' for that service; or
3) the 'prevailing charge' for the service in that locality.

"The 'customary charge' is defined by Medicare as the individual physician's median charge for the service (an amount which would cover his charge at least half the times he performed the service). The 'prevailing charge' is defined as the 75th percentile of customary charges for physicians of like training and skill, weighted by frequency, i.e., an amount which would cover the 'customary charge' for the service in that area at least three-fourths of the times it is performed.

"AMA policy, on the other hand, defines 'reasonable charge' as *either* the 'usual and customary' charge defined in Resolution 48 (C-68) or a charge deemed justifiable by the responsible medical association's review committee, based on the circumstances of the individual case.

"Medicare's CPR method also differs from AMA's UCR concept in that the amount of Medicare payments lag further behind current physician charges, since they are based on charge data up to 2½ years old. Both the 'customary charge' and the 'prevailing charge' are calculated from data on physician's charges during the calendar year before the fiscal year in which the claim is submitted; therefore, Medicare payment for most physicians' services is based on what the physician was charging a year to 2 1/2 years previously, and are that far behind charges to the non-Medicare public from the start.

"Finally, the two concepts differ in that—since 1976—the allowable yearly increase in Medicare payments is further limited by an 'economic index' established by the Health Care Financing Administration. The 'Economic Index' regulations, published in final form on June 16, 1975, established a maximum percent of increase in 'prevailing charges' allowable for any year over the prevailing charges in effect during fiscal year 1973. Thus, the allowed yearly percent of increase is limited not only by actual increases in physicians' charges but by an economic index established by the Department of Health and Human Services, which is intended to reflect increases in the cost of doing business. The index operates on the assumption that 40% of a physician's income goes to expenses and 60% to net income. It allows an expense-related increase in the prevailing charge based on data on salary increases in non-medical service industries, on increases in housing and transportation costs, on wholesale price increases for drugs and pharmaceuticals, and (for miscellaneous costs) on consumer price index increases. An increase in the net income component is allowed in proportion to increases in the earnings of production and non-supervisory workers, adjusted to eliminate productivity increases. The 'economic index' is calculated annually by HCFA and furnished to all carriers. For 1980 (July 1, 1979 to June 30, 1980) the economic index was set by HCFA at 53.3%. This means that prevailing charges in 1980 can be no more than 53.3% above the level of prevailing charges in 1973 (which were based on charge data from 1971)."

'Accordingly, the Council recommends that AMA policy be retained, and that the Association devote greater emphasis to its legislative and other efforts to assure equitable and realistic levels of reimbursement for physician services under the Medicare and Medicaid program. Concentrated effort should be focused on the repeal of the economic index regulations."

Health Maintenance Organizations

An extensive report and background information was presented on Health Maintenance Organizations developed by the Council on Medical Service. It constituted an objective in-depth study of this form of care delivery and considered such aspects as cost of care in an HMO as opposed to traditional insurance, the quality of care provided, the accessibility of care and other major issues.

After considering this report, the Delegates adopted the following recommendations regarding HMO's:

Based on its study of HMO's, the Council on Medical Service recommends:

That approval of the concept of neutral public policy and fair market competition among all systems of health care delivery continue to be AMA policy, with the potential growth of HMOs being determined not by federal subsidy, preferential federal regulations, and federal advertising promotion, but by the number of people who prefer this mode of delivery;

That the AMA continue to recognize that no single pattern of health care delivery is necessarily suited to all patients or to all physicians, and that the presence of multiple alternative delivery systems will enable both patients and physicians to exercise a true choice;

That the AMA continue to express its concern that high standards of quality, adequate physician-patient ratios, and continuity of personal care be maintained in all modes and systems of health care delivery;

That individual physicians and groups of physicians become better informed about the pros and cons of establishing or participating in an HMO if interest in this form of health care delivery is present in their community;

That the AMA continue to provide information to medical societies and physicians concerning HMOs;

That the AMA encourage research in those areas of HMO performance which have been identified as needing further study; for example, whether factors leading to apparent HMO cost-effectiveness are unique to the HMO pattern or whether they may be applicable to other forms of practice; and

That this report be adopted as meeting the request of this House for an objective assessment of HMOs, and in lieu of Resolution 17 (I-79).

In a related action, the House of Delegates adopted a resolution, #59, which reaffirms the existing AMA stand against special and preferential subsidies by the Federal Government to one form of health care and

urges the Government to terminate such grants and subsudies. House action also reaffirmed support of fair market competition, and opposition to preferential regulations for HMO's and tax supported advertising campaigns.

Complete copies of all reports and resolutions discussed here are available from the Headquarter's Office, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Richard A. Allnutt, Covington
John McCowan Baird, Danville
Branham B. Baughman, Frankfort
Wm. B. R. Beasley, Hyden
Charles Mullins Brohm, Prospect
Stephen Michael Cox, Lexington
Bennett L. Crowder, Hopkinsville
Guy C. Cunningham, Ashland
Luis Eduardo Davila, Fort Thomas
Larry Florman, Louisville
Veryl Fell Frye, Somerset
Stuart Graves, Louisville
Gabriel George Gruber, Louisville
Andrew Robertson Hamon, Glasgow
Joseph Edward Kutz, Louisville
Jean Bernard LeSage, Middlesboro
Frank R. Lemon, Lexington
Cecil D. Martin, Carrollton
Louis John Nutini, Erlanger
Ila R. Patel, Lexington
Robert Leet Reid, Owensboro
Gaithel L. Simpson, Greenville
Richard Francis Smith, Lexington
Robert Charles Smith, Newport
Carol I. Boyer Stelling, Lexington
Craig Charles Wetzelberger, Louisville
Richard Alan Wright, Prospect

Requirements for Reporting Child Abuse

In 1972 the Kentucky General Assembly enacted legislation regarding Child Abuse and reporting requirements by physicians, osteopaths and other health professionals to the Bureau for Social Services and officers of the Court.

We are reprinting those sections of interest to physicians. Should you have questions or desire additional information, please contact your legal counsel.

199.335. Specified persons to report child abuse or neglect—Report to law enforcement agency—Search warrant—Protective custody—Immunity from liability.—(1) The purpose of this section, KRS 530.060, 530.070, subsections (4) and (5) of KRS 208.020 and subsections (4) and (5) of KRS 208.990 is to provide for the identifying of any abused or neglected child; to require reports of any suspected abused or neglected child; to assure that the protective services of the state will be made available to an abused or neglected child in order to protect such a child and his siblings; to further prevent abuse or neglect; to preserve and strengthen family life, where possible, by enhancing parental capacity for adequate child care; and to provide for immediate and prompt investigation of such reports.

(2) Any physician, osteopathic physician, nurse, teacher, school personnel, social worker, coroner, medical examiner, child caring personnel, resident, intern, chiropractor, dentist, optometrist, health professional, peace officer, mental health professional or other person who knows or has reasonable cause to believe that a child is an abused or neglected child, shall report or cause a report to be made in accordance with the provisions of this section. When any of the above specified persons is attending a child as part of

his professional duties, he shall report or cause a report to be made in accordance with the provisions of this section. Nothing in this section is intended to relieve individuals, agencies or organizations of their obligation to report.

(3) A report shall be made immediately by telephone or otherwise to the bureau or its delegated representative. If the person making the report has reason to believe that immediate protection for the child is advisable, that person shall also make an oral report to an appropriate law enforcement agency. If the report is made to any agency other than the bureau, such agency shall promptly refer the report to the bureau. The report shall be followed by a written report within forty-eight (48) hours if so requested by the bureau. The bureau or its delegated representative shall upon the receipt of the initial report immediately send a report of suspected physical or sexual abuse to the appropriate law enforcement agency for any appropriate action. Such report shall contain the names and addresses of the child and his parents or other persons responsible for his care, if known, the child's age, the nature and extent of the child's abuse or neglect (including any evidence of previous abuse or neglect) to this child or his siblings; the name and address of the person responsible for the abuse or neglect; and any other information that the person making the report believes may be helpful in the furtherance of the purpose of this section. The bureau may request and shall receive from any agency of the state or any other agency, institution or facility providing services to the child or his family, such cooperation, assistance and information as will enable the bureau to fulfill its responsibilities under this section.

(4) A search warrant shall be issued upon a showing of probable cause that a child is being abused or neglected. If, pursuant to a search under a warrant a child is discovered and appears to be in imminent danger, the child may be removed by the local law enforcement officer. In the event a child who is in a hospital or under the immediate care of a physician appears to be in such certain danger of injury or death if he is returned to the persons having custody of him, the physician or hospital administrator may hold a child in the physician's office or the hospital without a court order provided that an attempt is made to obtain such court order at the earliest practicable time not to exceed seventy-two (72) hours. Any appropriate law enforcement officer may take a child into protective custody and may hold that child in protective custody without the consent of the parent or other person responsible for such child, if the officer has reasonable cause to believe that there exists an imminent danger to the child's life or health.

. . .

(6) Anyone acting upon reasonable cause in the making of a report pursuant to this section, KRS 530.060, 530.070, subsections (4) and (5) of KRS 208.020 and subsections (4) and (5) of KRS 208.990 shall have immunity from any liability, civil or criminal, that might otherwise be incurred or imposed. Any such participant shall have the same immunity with respect to participation in any such judicial proceeding resulting from such report.

(7) Neither the husband-wife nor any professional-client/patient privilege, except the attorney-client privilege, shall be a ground for refusing to report under this section or for excluding evidence regarding an abused or neglected child or the cause thereof, in any judicial proceedings resulting from a report pursuant to this section.

. . .

(10) As a result of any report of suspected child abuse or neglect as defined in KRS 199.011(6) photographs and X-rays or other appropriate medical diagnostic procedures may be taken or caused to be taken, without the consent of the parent or other person responsible for the child, as a part of the medical evaluation or investigation of such reports. Such photographs and X-rays or results of other medical diagnostic procedures may be introduced into evidence in any subsequent judicial proceedings. The person taking such photographs or X-rays shall be immune from criminal or civil liability. (Enact. Acts 1964, ch. 85, §§ 1, 2; 1970, ch. 279; 1972, ch. 232, § 1; 1974, ch. 74, Art. VI.

199.990. Penalties.

. . .

(7) Anyone knowingly and wilfully violating the provisions of subsection (2) of KRS 199.335 shall be guilty of a class B misdemeanor as designated in KRS 532.090.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

DOCTORS OFFICE. Outstanding location for Family Practitioner in Lexington, Ky. Office contains 1,100 sq. ft. with very reasonsble rent. Many referrals daily from physicians with closed practice. Weekends and nightly rotation with four other physicians. Call (606) 299-7868 after 9:00 p.m.

PROSPEROUS WESTERN KY. COMMUNITY with expanding Medical Facility needs qualified Ophthalmologist, ENT, Urologist, Orthopod, OB-GYN, Internist and F.P. Excellent guarantees and practice opportunity for the individualist. Contact W. L. Miller, M.D., Chairman, Phys. Recruit. Com. Muhlenberg Community Hospital, Greenville, KY 42345, (502) 338-4211

POSITION WANTED

PULMONARY INTERNIST, 29, ABIM and Pulmonary Board eligible, seeks partnership with internist(s), with or without sub-speciality. Prefer mid or western Kentucky. Available July 1981. William M. O'Bryan, M.D., 3328 Westcliffe Court, Augusta, Georgia 30907.

LOCUM TENENS work wanted. Family and General Practice, open availability. T. C. Kolff, M.D. (801) 566-1666.

We're not asking you for money.

Just a few words. To people who need us but don't know we exist.

We're Recording for the Blind. We're already helping more than 13,000 handicapped students. But there are a lot more out there who need our help.

You know who they are. In your work you come across students who are blind, dyslexic or physically unable to handle books. These are the students we help. Since they cannot read their textbooks, we do it for them. On tape. And we send the tapes to the students free of charge.

All we want you to do is tell eligible students about us. Have them contact: Student Services, RFB, Inc., 215 East 58th Street, N.Y., N.Y. 10022, (212) 751-0860. We'll take it from there.

It's such a little thing to ask.

Recording for the Blind is a non-profit organization. All contributions are tax-deductible

Recording for the Blind, Inc.

an educational lifeline.

Remember
ZYLOPRIM®
the original (allopurinol)
100 and 300 mg
Scored Tablets
The name Zyloprim is now imprinted on each tablet.
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Headquarters Activity

AUGUST

6-7	KMA Board of Trustees, Louisville
6	Judicial Council, Louisville
12	*Journal* Editors, Louisville
12	Licensure Board Hearing, Louisville
28	Paramedic Advisory Committee, Louisville

SEPTEMBER

9	*Journal* Editors, Louisville
22-25	KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville
23	Maternal Mortality Study Committee, Ramada Inn/Bluegrass Convention Center, Louisville
25	Board of Medical Licensure, Louisville

OCTOBER

1-3	Officers Staff Conference, Louisville
14	*Journal* Editors, Louisville
23	Claims and Utilization Review Committee, Louisville

★
Specialized Service
IN
PROFESSIONAL LIABILITY INSURANCE
is a high mark of distinction
THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greeno, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220
LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

KMA Physician Recruitment Fair is Scheduled for October 4

The Kentucky Medical Association, along with the University of Kentucky, University of Louisville, Kentucky Hospital Association, Kentucky Chamber of Commerce and the Department for Human Resources is sponsoring the Second Annual Physician Recruitment Fair.

The one-day program will be held October 4, 1980, at the University of Kentucky campus and will feature an exhibit hall where medical students, residents and physicians may meet with more than 40 communities to discuss practice opportunities.

You and your spouse are cordially invited to attend this program. For more information and registration forms, please call or write the KMA Placement Service, 3532 Ephraim McDowell Drive, Louisville, KY 40205 (502) 459-9790.

CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

Tenuate®
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence.* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous.* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M. A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

Merrell

9-4672 (Y957A)

Overweight may not always be simple... complications can develop.*

Complicated or not...

Tenuate® Dospan® ©IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.

In G.I. therapy



Adjunctive Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

ROCHE®

Roche Products, Inc.
Manati, Puerto Rico 00701

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older.

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

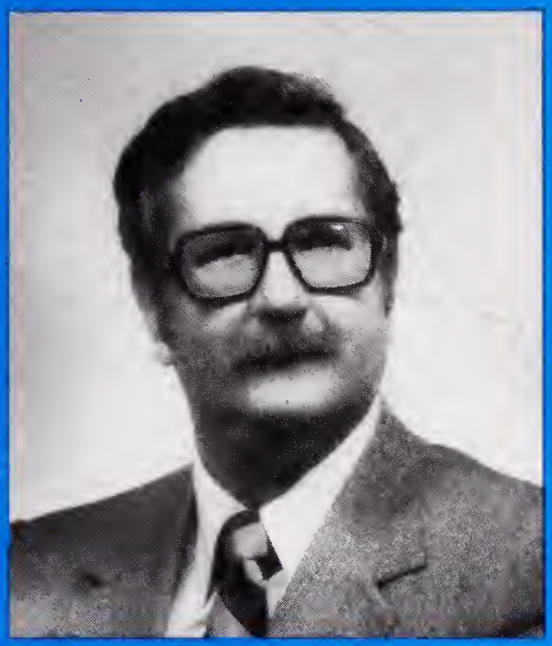
Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

MDS

Anastomotic Aneurysms
Antimicrobial Therapy, Case #20, Part B:
Fever in Pregnancy
Mixed Connective Tissue Disease in a Child

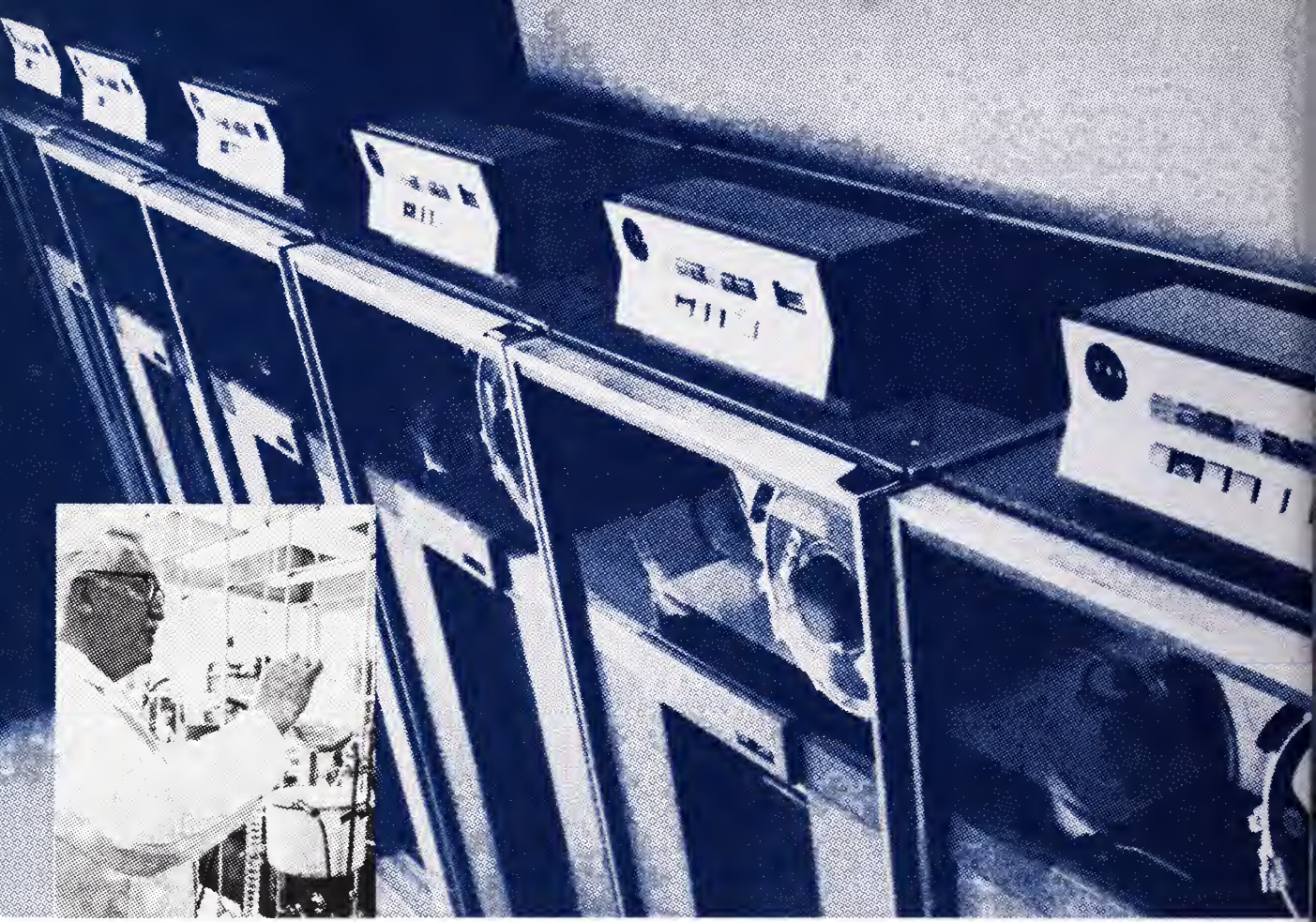
October 1980
Volume 78
Number 10



FRANK R. PITZER, M.D.
KMA PRESIDENT
1980-81

The Journal Of The Kentucky Medical Association

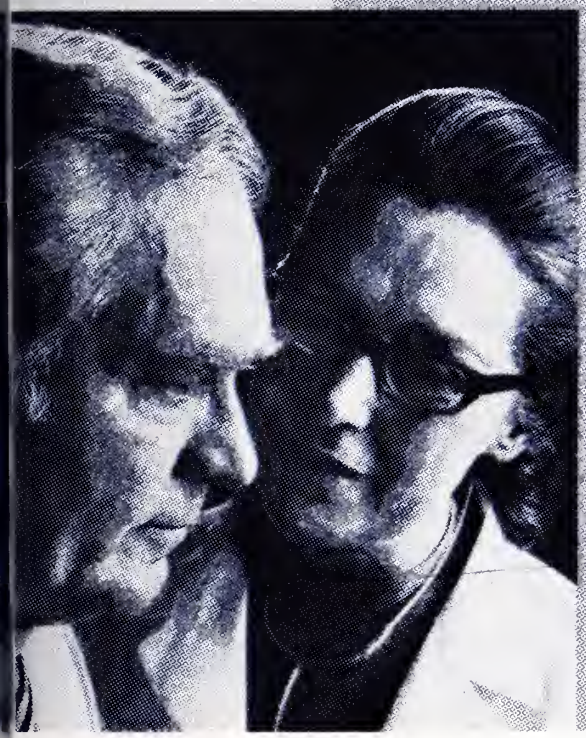
LIBRARY
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
NOV 24 1980



proven antianxiety

Highly specific calming action virtually free of unwanted side effects: this was the remarkable clinical promise of Librium (chlordiazepoxide HCl). And today this promise continues to be fulfilled in a wide variety of patients you see every day.

ROCHE



The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium® ℞
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules

synonymous with relief of anxiety

- ☐ An unsurpassed safety record
- ☐ Minimal effect on mental acuity, in proper dosage
- ☐ Predictable patient response
- ☐ Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults.* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients.* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

ROCHE Roche Products Inc
Manati, Puerto Rico 00701

Postgraduate Opportunities

OCTOBER

1-2	8th Annual Fall Pediatric Surgery—Pediatrics Symposium, Indianapolis Hilton Hotel
1-4	American Assoc. for Cancer Education, Hyatt Regency, Louisville
10	Critical Care Symposium, Jewish Hospital, Louisville
24-26	Hypnosis in Medicine, Ramada Inn-Bluegrass, Louisville**
27-29	Mid-American College Health Assoc., Hyatt Regency, Louisville
29	Louisville Pediatric Society Lectureship, Health Sciences Center, Louisville
30-31	14th Annual Newborn Symposium, Health Sciences Center, Louisville

NOVEMBER

1-2	KAFP Fall Seminar, Hyatt Regency, Louisville
2-6	Images of Old Age, Smithsonian Exhibit, Health Sciences Center, Louisville**
13	Diabetes in the Elderly, Health Sciences Center, Louisville**
18	Cancer Symposium, Highlands Baptist, Louisville
20	Consequences of Stress, Health Sciences Center, Louisville**

DECEMBER

5-6	Nephrology and Urology Seminar, Hyatt Regency, Louisville**
10-12	Neurology for the Non-Neurologist, Sheraton Plaza Hotel, Chicago, Illinois

---

***For further information contact: Gerald D. Smith, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*

**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161*

Volume 78 • October 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

SCIENTIFIC ARTICLES

Anastomotic Aneurysms
Rodney McMillin, M.D. and Gordon L. Hyde, M.D. . 593

Clinical Approach to the Choice of Antimicrobial Therapy, Case #20, Part B: Fever in Pregnancy
David B. Waterfill, M.D., William C. Templeton, M.D., Martin J. Raff, M.D., and Julio C. Melo, M.D. 596

Mixed Connective Tissue Disease in a Child
John P. Howard, M.D. 601

PROFILE

Frank R. Pitzer, M.D. 612

EDITORIAL

Cost-effective: the new nemesis 615

SPECIAL ARTICLE

How Does the Idea of a Public Restroom in the Privacy of Your Home Strike You? 617

ASSOCIATIONAL NEWS

Report on August Meeting of Board of Trustees 627
JCAH Appoints Committee to Improve Communications 629
JCAH Revises CPR Requirement for Medical Staff 633

REGULAR FEATURES

Postgraduate Page 588
President's Page 591
Manuscript Information 604
CME 611
Letters to the Editor 623
Book Reviews 625
Cost Consciousness 627
Headquarters Activity 630

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscriptions $15
(Members $7.50)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

Issued Monthly Under the Direction of the Board of Trustees

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **ASSOCIATE EXECUTIVE EDITOR**
Joseph A. Witherington, Jr.

• **MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

BOARD OF TRUSTEES—1980-1981

Officers

President ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1981

President-Elect ..... BALLARD W. CASSADY
P. O. Box 2469, Pikeville 41501—606/437-6698 1981

Immediate Past President ..... ROBERT S. HOWELL
Jewish Hospital, 217 East Chestnut Street, Louisville 40202—502/587-4460 ... 1981

Vice President ..... CHARLES B. SPALDING
201 South Fifth Street, Bardstown 40004—502/348-5968 1981

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, 3950 Kresge Way,
Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 1983

Vice Speaker, House of Delegates ... PETER C. CAMPBELL, JR.
Suite 400-224 East Broadway, Louisville 40202—502/583-9749 1983

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P. O. Box 406, Berea 40403—606/986-8452 1981

Vice Chairman ..... EARL P. OLIVER
217 West Main Street, Scottsville 42164—502/237-3144 1981

Delegates to the AMA

DAVID B. STEVENS, Shriners Hospital, 1900 Richmond Road, Lexington 40502—606/266-2101 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1982
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1982

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1983
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1983
4th ..... T. ROBERT TAYLOR, M.D., Twin Rivers Farm, Rt. 1, Boston 40107—502/769-5551 1983
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41015—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... DANNY M. CLARK, 401 Bogle Street, Somerset 42501—606/679-4396 1983
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... CHARLES G. NICHOLS, Professional Building 200, Pikeville 41501—606/432-0191 1983
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

OCTOBER BUYERS GUIDE FOR JOURNAL OF KMA

Blue Cross & Blue Shield of Kentucky 626
Boehringer Ingelheim Ltd. 620, 621, 622
Boots Pharmaceuticals 607, 608, 609, 610
Burroughs Wellcome Company 624
Campbell Laboratories, Inc. 633
Classified Column 634
General Leasing Corporation 630
Humana, Inc. 634
Insurance Corporation of America 592
Kentucky Medical Insurance Corporation 606
A.P. Lee Agency 616
Eli Lilly & Company 628
Medical Protective Company 629
Merrell National, Inc. 618, 619
Roche Laboratories 586, 587, 588, 637, 638
South Central Bell 605
Wyeth Laboratories 630, 631, 632

PRESIDENT'S PAGE



AS we begin another Associational year it is apparent now, more than ever before, that if a free enterprise system of health care is to exist, new and continued efforts by physicians must be forthcoming. The destiny of health care, as presently planned, will place the health system under the control of forces outside of medicine. Health planners, social workers, bureaucrats and many misguided politicians are currently intent on the social, economic political control of hospitals, health departments, nursing homes and physicians.

HSA's, Certificate of Need, and now Appropriateness Review, all provide for the chaotic, rejustifying provision of all existing and planned health services and allow the planners to determine "continuing need." A review by any person knowledgeable in history quickly reveals that these social planning programs will result in the control of medicine and health services, not necessarily better or quality medical care. Physicians must unite and rededicate their talent to the fight for maintaining a free, uncontrolled, self-determined system of health care. Only a new dedication to the principles of free enterprise will maintain our independence in the health care system.

Organized medicine must renew and foster our association and friendship with our partners in the health care industry to combat the ever increasing social doctrine of health care control. We must be willing to fight in the halls of Congress, in the State Legislature and in the courts to maintain physician guidance in the health care systems. The price of freedom will be a constant vigilance by a united Association intent on the principles of free enterprise, dedicated to quality medical care. Self-serving interests, professional discord and complacency will only hasten our demise and control.

As President, I intend to serve as a catalyst in the reaction of medicine to the planned social control system. I am certain all our membership will assist and dedicate their talents to this effort.

Frank R. Pitzer, M.D.
KMA President



SOME MALPRACTICE INSURANCE POLICIES SETTLE FOR JUST ANYBODY.

Today, all too many people are finding it easy to sue. And unfortunately, all too many insurance companies are finding it easier on themselves to settle. Quickly and out of court. Little thought is given to defending your reputation.

In fact, your insurance company may not even give you an option to fight a claim. Or if you do have that option, you can be hit with a costly penalty for going to court.

And there are other ways your insurance company may not stand behind you. For instance, chances are to save costs and time your company will use a claims adjuster to handle your case. Not a lawyer.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working hard for doctors. We know the strong coverage and knowledgeable service physicians need from their liability insurance. And because we specialize in this one field, we can offer a superior policy at a realistic premium. Premiums based on actual costs in your state.

Don't settle for just any insurance. Get a policy that really stands behind you. Contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas phone 1-800-231-2615.

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

The Journal Of The Kentucky Medical Association

October 1980 Volume 78 Number 10

Anastomotic Aneurysms

RODNEY McMILLIN, M.D. and GORDON L. HYDE, M.D.

A case report demonstrating anastomotic pseudoaneurysms in a single patient is presented. Pseudoaneurysms will develop in 2-20% of anastomoses depending on certain factors. Suture and graft material, the presence of hypertension and infection, surgical technique, and host artery degenerative changes may influence the formation of pseudoaneurysms. Complications of pseudoaneurysms may include rupture, fistulization, embolism and thrombosis. Diagnosis is made with arteriography and surgical intervention is recommended with careful attention to technique.

Introduction

VASCULAR anastomoses have surpassed penetrating vascular trauma as a leading cause of pseudoaneurysm formation. An anastomotic pseudoaneurysm as a postoperative complication of vascular surgery poses difficulty in diagnosis and management.

From the Department of Surgery, University of Kentucky Medical Center, Lexington, KY

Case Report

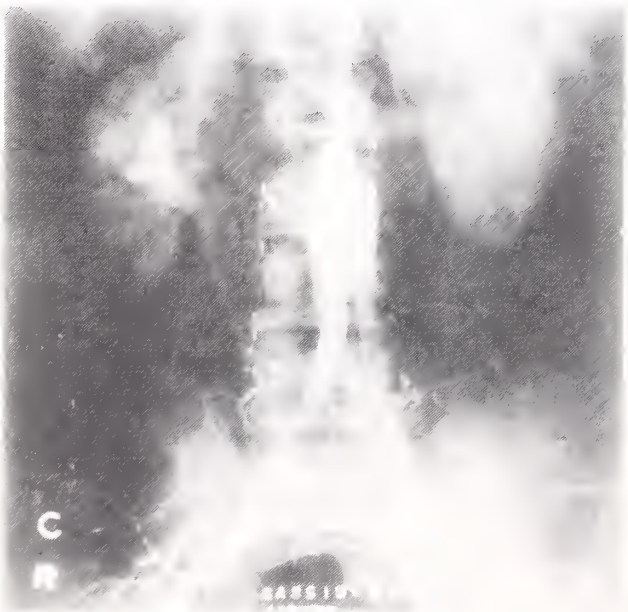
A 51-year-old white male presented to the University of Kentucky Medical Center Emergency Room complaining of cold painful legs. Ten years previously he had had an aorto-femoral bypass graft for aorto-iliac occlusive disease with the proximal anastomosis being end of graft to the side of the abdominal aorta. On this admission he had palpable 4 cm bilateral femoral pseudoaneurysms and Doppler examination revealed no Doppler pulses in either popliteal space or distally. The patient underwent arteriography through the left brachial artery and was found to have a 5 cm anastomotic aneurysm of the aorta, and thrombosis of both limbs of the graft was noted. (Figure 1) The patient was prepared and taken as soon as possible to the operating room where a thrombosed aorto-femoral graft was removed. Since no signs of infection were apparent, the thrombosed graft was replaced with a weave-knit graft in the same position. A 16 mm by 8 mm bifurcation graft was placed end to end of the abdominal aorta, and end to end on the superficial femoral arteries with the deep femoral arteries anastomosed separately to the side of the graft prosthesis. Arteriograms obtained in the operating room demonstrated patent anastomosis. In the postoperative recovery room Doppler pulses were immediately found in both popliteal

arteries, but not distally. The patient did regain Doppler pressures at the ankles which were in the 60 mmHg range bilaterally over the next several hours. Although his postoperative course was complicated by development of a right anterior compartment syndrome requiring fasciotomy, he subsequently healed all wounds and on recovery was fully ambulatory.

Discussion

This complicated vascular case demonstrates anastomotic pseudoaneurysms developing at each anastomosis of an aorto-femoral bypass graft that had been in place for 10 years. An anastomotic aneurysm may be defined as a separation, either partial or total, of the anastomosis between the vascular prosthesis and the host artery. Continuity is usually maintained by a fibrous tissue capsule. Any anastomosis may exhibit pseudoaneurysmal formation. Since not true anatomic layers are present, weakness of the wall is an inherent problem with pseudoaneurysms.

In the 1960's Wylie reported that 20-30% of vascular anastomosis developed pseudoaneurysms.[1] However, Knox in 1976 found only six pseudoaneurysms in a five year follow up of 320 vascular reconstructions for an incidence of two percent.[3] Stoney and Sawyers felt that the average time interval between the original procedure and the diagnosis of the pseudoaneurysms is approximately two to three years.[1] As a time interval from construction of the anastomosis to development of the pseudoaneurysm is increased, likelihood of infection being present is considerably less. Chavez stated that if a time interval is greater than four years infection is very uncommon.[4]



The etiology of pseudoaneurysmal formation is variable with six main factors being implicated. (Table 1) (1) Suture material may have a role in the etiology. Moore feels that silk sutures are partially absorbed and fragmented after four years[1] Anastomotic aneurysms are thought to be less likely when polypropylene sutures are used. However, this feeling is not held by as Chavez describes 40 patients who experienced no increase in the frequency of anastomotic pseudoaneurysms following the use of silk.[4] Although Knox's 15-year experience concluded that suture material probably has a role, he has identified more pseudoaneurysms associated with Prolene and Dacron than silk.[3] (2) Infection at the anastomotic site is associated with pseudoaneurysm formation. This is felt to be due to necrosis of the arterial wall and separation of the intima as the infection progresses. (3) Surgical technique also appears to have a role in pseudoaneurysmal formation. Increased tension on the graft, nonapposition of the intima and graft, and end-to-side anastomosis have all been implicated. These technical factors are said to increase the incidence of anastomotic aneurysms. (4) The graft material may be a problem due to fragmentation, especially if woven grafts are used. End-to-side anastomosis are especially prone to the problem of fragmentation. Therefore, when the grafts must be used, placement of deep suture bites to incorporate a good deal of graft material may reduce

TABLE I

ETIOLOGY OF PSEUDOANEURYSMS

1. Suture Material
2. Infection
3. Surgical Technique
4. Fragmentation of Graft
5. Hypertension
6. Host-Artery Degenerative Disease

fragmentation. (5) Hypertension may be the most important factor in the pseudoaneurysmal formation, but is often overlooked. Nunn states that chronic hypertension and anticoagulation therapy predispose to anastomotic leaks and eventual anastomotic aneurysms. Sixteen of 28 anastomotic aneurysms in Knox's series were in patients with hypertension.[3] (6) Host artery degenerative vascular disease occurring at the graft-host artery interface may also be an important cause of pseudoaneurysms.

The natural history of anastomotic aneurysms may be indolent or catastrophic. Rupture can occur usually at the aortic or iliac area, or aortoenteric fistula may develop. Emboli may originate from any of the areas. Our patient exhibited another complication of pseudoaneurysms, that of graft thrombosis. The most common presentation of pseudoaneurysms, however, is the gradual enlargement of a painful, pulsatile mass in the groin. Emboli or thrombosis are the most common problems with the femoral pseudoaneurysms and rupture is rare.[4] Pseudoaneurysms at the proximal anastomosis in the aorta are usually unsuspected until symptomatic complications occur. They may rupture locally and present as a palpable tender mass, or may erode into the gastrointestinal tract and bleed through the aortoenteric fistula. Iliac pseudoaneurysms may appear as a swollen leg due to iliac vein compression and may also erode into the small bowel or present as a painful pulsatile mass.

Diagnosis can usually be made by history and physical examination. Ultrasonography plays a role for following the expansion of pseudoaneurysms, but unless they are large, it does not appear to be helpful. Angiography is not only diagnostic, but is indicated in the patients who present with femoral aneurysms because of a high association of aneurysmal formation proximally at the aortic anastomosis. Most authors recommend oblique views in the angiographic evaluation to increase the accuracy of identification of small pseudoaneurysms.

When diagnosis is made, most encourage repair.[4] However, the true incidence of complications from late aneurysms are not known. Principles of treatment include standard proximal and distal control, but proximal control often requires vey difficult and high dissection. Infection must be ruled out at the time of removal of the pseudoaneurysm and the associated graft. Gram stain and culture of the fluid at the time of the graft removal as well as clinical impressions are very important. Extra-anatomic bypass may be indicated if obvious infection is present. However, as in this case, if there is no evidence of infection, another graft may be placed in the same position. Prevention is still the best form of therapy with careful attention to surgical technique, blood pressure control, the graft utilized and methods for reducing infection.

References 1. Moore W Rutherford's Vascular Surgery, pg 695-701, W.B. Sanders Company, 1977. 2. Szilagyi DE Anastomotic aneurysms after vascular reconstruction: problems of incidence, etiology, and treatment. *Surgery* 78:800, 1975. 3. Knox WG Peripheral vascular anastomotic aneurysms. *Annals of Surgery* ???183:120, 1976. 4. Chavez CM False aneurysms of the femoral artery. *Annals of Surgery* 183:694, 1976.

Clinical Approach to the Choice of Antimicrobial Therapy, Case #20, Part B: Fever In Pregnancy

DAVID B. WATERFILL, M.D., WILLIAM C. TEMPLETON, M.D., MARTIN J. RAFF, M.D. and JULIO C. MELO, M.D.

This is the twenty-first in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the diagnosis of infectious diseases and the use of antibiotics. A case history is presented, followed by multiple choice questions relevant to management of the patient described. The authors' choices of answers and explanations of how they assessed these cases and chose therapeutic regimens are provided.

THE patient described in Part A last month is a 27-year-old pregnant Korean woman with signs and symptoms suggestive of tuberculosis. Chest x-ray has revealed a right upper lobe pulmonary infiltrate, and a skin test has been placed using 0.1 cc (5 units) of stabilized PPD.

The CBC reveals a hemoglobin of 12.2 gm/dl, and a hematocrit of 36.5% with normochromic, normocytic indices. WBC count is 12,400/mm^3 with 68% neutrophils, 1% stabs, 16% lymphocytes, and 15% monocytes. A Ziehl-Neilson stain of sputum reveals many acid-fast bacilli. The PPD is positive with 25 mm of erythema and palpable induration. A diagnosis of tuberculosis is confirmed.

Which of the following antituberculous regimens should now be initiated?

A. Isoniazid (INH) 300 mg p.o., q.d. for one year
B. Isoniazid 300 mg p.o., q.d. plus ethambutol 15 mg/kg/day p.o. for 18-24 months
C. Isoniazid 300 mg p.o., plus rifampin 600 mg p.o., q.d. for 18-24 months
D. Isoniazid 300 mg p.o., q.d. plus ethionamide 1 gm p.o., q.d. for 12 months
E. None of the above

Answer B. Isoniazid (INH) 300 mg p.o., q.d. plus ethambutol 15 mg/kg p.o., q.d. for 18 months.

The choice of therapy for active pulmonary tuberculosis depends upon several factors. Agents currently available are shown in Table 1. Selecting an appropriate combination of drugs depends upon balancing therapeutic effectiveness, potential toxicities and side-effects, cost and patient acceptance. This requires tailoring the treatment to each individual, with the extent of tuberculous diseases, socio-economic factors, and associated states of health (*ie* liver or kidney diseases, pregnancy, etc.) becoming major influences. Isoniazid and rifampin are the two most effective antituberculous drugs available and can be used in combination with each other. In fact these two agents produce more rapid sterilization of the sputum than the three drug combination of INH, streptomycin and ethambutol[25] and adding eth-

From the Department of Pediatrics, the Section of Infectious Diseases, Department of Medicine, and the Department of Microbiology and Immunology, the University of Louisville School of Medicine, Louisville, KY

TABLE 1—ANTITUBERCULOUS COMPOUNDS

Generic Name (Brand Name)	Average Daily Dose	Approximate Retail Price in Kentucky for a Daily Dose Based Upon a 100-Day Supply
First Line Drugs		
Isonicotinic acid hydrazide (Isoniazid INH®)	300 mg	$.06
Rifampin (Rifadin®, Rimactane®)	600 mg	$1.80
Ethambutol (Myambutol®)	15-25 mg/kg body wt.	$.65 to $1.10
Back-Up Drugs		
Para-amino salicylic acid (PAS)	12-16 gm (9-12 for PAS-C)	$1.45 to $1.55
Pyrazinamide	20-40 mg/kg body wt. (maximum 3 gm)	$.75 to $1.50
Streptomycin	750 mg to 1.0 gm	$3.00
Tertiary Drugs For Resistant Organisms		
Capreomycin (Capastat®)	1 gm (2-3 times per week after initial response)	$8.62
Cycloserine (Seromycin®)	500 mg to 1.0 gm	$.84 to $1.68
Ethionamide (Trecator—SC®)	10-20 mg/kg body wt. (maximum 750 mg)	$.72 to $1.44
Kanamycin (Kantrex®)	500 mg to 1.0 gm	$1.15 to $2.30
Viomycin (Viocin®)	500 mg to 1.0 gm	Price Not Available

ambutol to INH and rifampin does not shorten the time for sputum conversion.

It is obviously advantageous to minimize exposure of the fetus *in utero* to drugs of any kind. Therefore the diagnosis of tuberculosis should be confirmed beyond a reasonable doubt before instituting treatment. The specific form of therapy selected for pregnant patients with active tuberculosis or for prophylaxis of pregnant patients at risk of developing tuberculosis depends on the potential side-effects for the mother and fetus of the antituberculous agents employed. In those with active tuberculosis, INH is recommended, as it is not known to harm the developing fetus.[26–29] Ethambutol is also without known teratogenic effects[27,29,30] and the combination of INH and ethambutol is the treatment of choice for the pregnant patient.

Rifampin in large doses has been found to be teratogenic in mice, but limited human data have revealed no problems in this respect.[27,29] However, since rifampin also has potential hepatoxicity,[31,32] particularly when used in combination with INH,[32,33] and there is greater risk of hepatic damage during pregnancy[35,36] it should probably best be avoided if possible.

Streptomycin, which crosses the placenta, has for the most part been found to be safe for the developing fetus. However, there are case reports of mild to severe vestibuloauditory damage in infants born to mothers who received the drug during pregnancy. Therefore, it is recommended for use only if a third drug is clearly indicated.[27,29,34]

PAS seems to be a safe drug for the gravid female, but gastrointestional intolerance may become unbearable.[26,35] Ethionamide, however, is teratogenic and should never be used during pregnancy.[35,37] Pyrazinamide is not recommended, due to fears of an increased likelihood of hepatic damage in pregnancy.[35]

Therefore, isoniazid (5 mg/kg/day up to 300 mg/day) and either ethambutol (15 mg/kg/day) or rifampin (600 mg/day) are usually chosen. Triple-drug therapy is indicated in the presence of extensive disease, whether cavitary or noncavitary, for at least the first two months of treatment.[38,39] Concern for the therapy chosen should be maintained even after childbirth since in the nursing mother INH, rifampin and streptomycin are all present in breast milk.[37]

Therapy must be continued for many months, as *Mycobacterium tuberculosis* can become dormant, and at least two drugs must be used to lessen the chance of *de novo* resistance developing during a course of treatment.[40,41] Most antituberculous agents, including INH and ethambutol, kill only dividing organisms,[40] although

rifampin and pyrazinamide may be effective against dormant bacilli as well.[42] Traditionally, treatment is continued for 18-24 months after the last positive sputum culture.

Extensive surgical procedures and prolonged hospitalization have become uncommon since the advent of effective antituberculous agents. Most patients may be sent home when fever, cough and other symptomatology have begun to abate and the numbers of organisms present on sputum examination have decreased.[38,39] By approximately two weeks of therapy patients are no longer infectious for others.[38] Compliance with continued therapy is the greatest problem however,[42] and patient education and ambulatory care facilities which provide for close follow-up are extremely important.[38]

A major development in the management of tuberculosis in the last decade has been the use of various "short-course" and "intermittent" treatment regimens. For example, nine months of daily isoniazid and rifampin after being combined for the initial two months with ethambutol or streptomycin (0.75-1 gm intramuscularly) has been found effective, even in cavitary disease.[43,44] Six month courses of triple drug therapy have also had acceptable long-term cure rates.[45,46] Intermittent therapy refers to twice weekly dosages, which, for noncompliant patients, can be given under supervision. Such programs lasting 18 months[39,47,48] and nine months[49] have also been used successfully.

Cultures of sputum should be obtained periodically while antituberculous therapy is being administered, as there is a small chance of reactivation of disease due to drug resistance, which may be primary or secondary. Primary resistance refers to an organism which was drug-resistant prior to being transmitted to the patient. Secondary resistance develops in a previously sensitive organism during a course of antituberculous therapy. The incidence of the primary type of drug resistance disease averages from 2-4%, but may be higher in certain areas.[41] Some authors suggest that initial susceptibility studies are not necessary unless the patient is from an area in which there is a high prevalence of resistance or has had incomplete therapy previously.[50] The patient from Korea described here will obviously require primary antituberculous sensitivities run on the tubercle bacillus isolated from her sputum. Resistance rates in the United States are very high in persons of Asian or Hispanic heritage.[51] Secondary drug resistance is usually due to inadequate prior treatment and/or associated medical or social problems.[42,52] While patients are on therapy, they should be monitored after four months for the appearance of a positive culture or the reappearance of consecutive positive cultures.[41,52] Fortunately primary resistance to ethambutol and rifampin seldom occur even where primary resistance to other drugs is common.[51] Early relapse is most likely to be due to true drug resistance; late relapse is often secondary to poor compliance.[52]

If the organism isolated on follow-up cultures is still susceptible to the antituberculous agents the patient is receiving but there is evidence of relapse, these agents should be continued and a third drug added.[52] When true resistance is found, the patient should be treated with three new agents, usually one injectable and two oral, for 24 months beyond the time of the last positive sputum culture.[41,52] These latter patients should probably be referred to a tertiary center for further management rather than being followed by their primary physician.

Side-effects of INH include dizziness, muscle twitching, seizures, hypersensitivity reactions, and an inhibition of diphenylhydantoin metabolism.[53] It may also produce alcohol intolerance.[54] Peripheral neuritis may occur, but is preventable by the administration of pyridoxine.[50] Pyridoxine may not be necessary if no more than 300 mg of INH is administered per day.[38] Hepatitis also occurs; symptoms may resemble a viral-like illness and usually are noted prior to the rise in liver enzymnes.[38,53]

The incidence of adverse reactions to rifampin is low,[25,32] and it is rarely necessary to discontinue the drug. Rifampin may increase the metabolism of warfarin,[55] oral hypoglycemic agents,[56,57] steroids,[58] methadone,[59] oral contraceptives,[59] digitoxin,[60] and other drugs.[61] Influenzal-like illnesses, hemolysis, renal failure, thrombocytope-

nia, light-chain proteinuria, and pruritis have been reported.[32] Bodily secretions may assume an orange-red color.[38,53] This includes urine, tears, feces, saliva and sweat. Warning patients of this potential in advance may prevent your being awakened at night by someone frightened out of their wits thinking that they have hematuria or hemoptysis. Hepatitis has been reported but is uncommon although rifampin may require being discontinued if it occurs.[31–33] The risk of this is felt to be additive, not synergistic, with that of isoniazid, and the two drugs are used concurrently in many regimens.[25,32,53] There are reports of a higher incidence of adverse effects and hypersensitivity reactions with twice-weekly rifampin when compared to daily or weekly therapy,[38] but this does not occur if the dosage is kept at or below 600 mg per day.[27]

The vestibular division of the eighth nerve is the most susceptible organ to streptomycin toxicity, resulting in ataxia and vertigo, but sensineural hearing loss and renal damage can also occur.[34,52]

Ethambutol has replaced PAS as a first-line drug due to the often intolerable gastrointestinal side-effects of the latter.[38] Ethambutol may produce retro-bulbar neuritis, affecting the central and/or peripheral fibers of the optic nerve,[53] but this usually is not a problem if dosages less than 15 mg/kg/day are employed.[34,63] If larger dosages are used, baseline examination of color vision and visual acuity should be performed and repeated once a month while the patient is on therapy.[53]

If a hypersensitivity reaction develops while the patient is receiving two or more antituberculous drugs, all should be discontinued and restarted singly.[41,52]

By screening of all family members with tuberculin skin tests and chest x-rays, it is discovered that the patient's asymptomatic 55-year-old father-in-law, who lives in the same household, has a positive reaction to PPD with a normal chest x-ray. His PPD had been negative one year earlier. He should be:

A. Treated with oral isoniazid for one year to prevent reactivation of primary tuberculosis
B. Not treated because of the potential risk of isoniazid hepatitis
C. Given a full course of chemotherapy with INH and ethambutol because he has clearly been exposed to a case of active tuberculosis
D. Cultured extensively to rule out active disease
E. Placed in a sanitarium

Answer A. He should be treated with isoniazid for one year to prevent reactivation of primary tuberculosis.

Prophylaxis with INH (300 mg/day) is recommended for those individuals who:[64]

1. Are close contacts of a patient with active pulmonary tuberculosis,
2. Have a positive PPD with an abnormal but nonprogressive chest x-ray,
3. Have converted a negative PPD to a positive one within two years,
4. Have a positive PPD with risk factors for tuberculosis reactivation (see above)
5. Are less than 35-years-old and have a positive PPD.

Patients older than 35 but with no risk factors other than a positive PPD should **not** receive INH prophylaxis.[64] One study found that cessation of INH therapy was necessary in 10% of patients due to side-effects,[54] but others have found the incidence to be less than this.[65] Although patients receiving INH prophylaxis should be followed for the development of symptomatic hepatitis, the risk of this should not preclude therapy where needed. Routine monitoring of hepatic function in the asymptomatic patient is not necessary.[64] However, one author does recommend this practice for patients over 35 years of age, and advises discontinuation of the drug in these individuals if liver enzymes become elevated.[66] Mild elevations of SGOT are common, but are usually transient and unaccompanied by symptomatic hepatitis.[54,64] Signs and symptoms of hepatitis, if they develop, usually do so during the first few months of therapy.[54] INH is therefore relatively contraindicated in patients with liver disease and in those who have had reactions to INH in the past.[64] In the father of the patient described here,

the history of recent PPD conversion following close exposure to active disease mandates prophylactic therapy. It is unnecessary to entertain more extensive evaluation in an otherwise asymptomatic patient.

Some authorities recommend prescribing INH as prophylaxis in pregnant patients for whom it seems appropriate, and one-third of the United States health departments do so.[38,67] Others suggest postponing prophylaxis until after delivery, since the liver is more susceptible to damage during pregnancy.[35,36] INH prophylaxis should probably be reserved for those pregnant patients who:

1. Have had previous incomplete therapy for active tuberculosis,
2. Have converted to a positive PPD within 1 year of pregnancy,
3. Have a positive PPD and an abnormal but nonprogressive chest x-ray, and
4. Have had close contact with active pulmonary tuberculosis.[27,35]

If therapy can be postponed until the third trimester, this would probably be preferable.[35]

REFERENCES 25. Newman R, Doster BE, Murray FJ and Woolpert SF: Rifampin in initial treatment of pulmonary tuberculosis; a U.S. Public Health Service Tuberculosis Therapy Trial. *Amer Rev Resp Dis* 109:215-232, 1974. 26. Schaefer G, Douglas RG and Silverman F: A re-evaluation of the management of pregnancy and tuberculosis. *J Obstet Gynecol Brit Emp* 66:990-997, 1959. 27. Schaefer G, Zervoudakis IA, Fuchs FF and David S: Pregnancy and pulmonary tuberculosis. *Obstet Gynecol* 46:706-715, 1975. 28. Ludfort J, Doster B and Woolpert SF: Effect of isoniazid on reproduction. *Amer Rev Resp Dis* 108:1170-1174, 1973. 29. Scheinhorn DJ and Angelillo VA: Antituberculous therapy in pregnancy: risks to fetus. *West J Med* 127:195-198, 1977. 30. Bobrowitz ID Ethambutol in pregnancy. Chest 66:20-24, 1974. 31. Scheuer PJ, Summerfield JA, Lal S and Sherlock S: Rifampicin hepatitis. A clinical and histological study. *Lancet* 1:421-425, 1974. 32. Girling DJ: Adverse reactions to rifampicin in antituberculous regimens. *J Antimicrob Chemother* 3:115-132, 1977. 33. Radner DB: Toxicologic and pharmacologic aspects of rifampin. *Chest* 64:213-216, 1973. 34. Robinson GC and Cambron KG: Hearing loss in infants of tuberculous mothers treated with streptomycin during pregnancy. *New Engl J Med* 271:949-951, 1964. 35. Weinstein L and Murphy T: The management of tuberculosis during pregnancy. *Clin Perinatol* 1:395-405, 1974. 36. Mattox JH The Value of a routine prenatal chest x-ray. *Obstet Gynecol* 41:243-245, 1973. 37. Potworowska M, Sianozeka E and Szukladowicz R: Ethionamide treatment and pregnancy. *Pol Med J* 5:1152-1158, 1966. 38. Johnston RF and Wildrick KH: The impact of chemotherapy on the care of patients with tuberculosis. *Amer Rev Resp Dis* 109:630-664, 1974. 39. Addington WW: The treatment of pulmonary tuberculosis: current options: *Arch Intern Med* 139:1391-1395, 1979. 40. Davidson PT: Changing concepts in tuberculosis chemotherapy. *Compr Ther* 3:38-44, 1977. 41. Byrd RB, Kaplan PD and Gracey DR: Treatment of pulmonary tuberculosis. *Chest* 66:560-564, 1974. 42. Fox W: The chemotherapy of pulmonary tuberculosis: a review. *Chest* 76:785-796, 1979. 43. Geppert EF and Leff A: The pathogenesis of pulmonary and miliary tuberculosis. *Arch Intern Med* 139:1381-1383, 1979. 44. Leff A and Geppert EF Public health and preventive aspects of pulmonary tuberculosis: infectiousness, epidemiology, risk factors, classification and preventive therapy. *Arch Intern Med* 139:1405-1410, 1979. 45. Short-course chemotherapy in pulmonary tuberculosis: a controlled trial by the British Thoracic and Tuberculosis Association. *Lancet* 2:1102-1104, 1976. 46. Results at five years of a controlled comparison of a 6-month and a standard 18-month regimen of chemotherapy for pulmonary tuberculosis. *Amer Rev Resp Dis* 116:3-8, 1977. 47. Intermittent chemotherapy for adults with tuberculosis. (Official ATS statement) *Amer Rev Resp Dis* 110:374-376, 1974. 48. Hudson LD and Skarboro JA: Intermittent ethambutol and isoniazid: a three-year experience. *Amer Rev Resp Dis* 107:1086-1087, 1973. 49. Dutt AK, Jones L and Stead WW: Short-course chemotherapy for tuberculosis with largely twice-weekly isoniazid-rifampin. *Chest* 75:441-447, 1979. 50. Lester TW Drug-resistant and atypical mycobacterial diseases: bacteriology and treatment. *Arch Intern Med* 139:1399-1401, 1979. 51. Kopanoff DE, Kilburn JO, Glassroth JL et al: A continuing survey of tuberculosis primary drug resistance in the United States. March 1975 to November 1977: A United States Public Health Service cooperative study. *Amer Rev Resp Dis* 118:835-842, 1978. 52. Lester W: Treatment of drug-resistant tuberculosis. *Disease-a-Month,* April 1971. 53. Addington WW The side effects and interactions of antituberculous drugs. *Chest* 76:782-784, 1979. 54. Byrd RB, Nelson R and Elliott RC: Isoniazid toxicity: a prospective study in secondary chemoprophylaxis. *JAMA* 220:1471-1473, 1972. 55. O'Reilly RA: Interaction of chronic daily warfarin therapy and rifampin. *Ann Intern Med* 83:506-508, 1975. 56. Sylvlahti EKG, Pihlajamki KK and Iisalo EJ: Rifampin and drug metabolism. *Lancet* 2:232-233, 1974. 57. Zilly W, Breimer DD and Richter E: Induction of drug metabolism in man after rifampin measured by increased phenobarbital and tolbutamide clearance. *Eur J Clin Pharmacol* 9:219-227, 1975. 58. Edwards OM, Courtenay-Evans RJ, Galley JM et al: Changes in cortisol metabolism following rifampin therapy. *Lancet* 2:549-551, 1974. 59. Kreek MJ, Garfield JW, Gutjahor CL and Guistic LM Rifampin-induces methadone withdrawal. *New Engl J Med* 294:1104-1106, 1976. 60. Bolt HM, Kappus H, and Bolt M: Rifampicin and oral contraception. *Lancet* 1:1280-1281, 1974. 61. Zilly W, Breimer DD and Richter E: Pharmacokinetic interactions with rifampicin. *Clin Pharmacokin* 2:61-70, 1977. 62. Peters U, Hausamen TU and Grosse-Brockhodd F: Einfluss von tuberkulostatika auf die Pharmakokinetick des Digitoxins. *Dtsch Med Wochenschr* 99:2381-2386, 1974. 63. Doster B, Murray FJ, Newman R and Woolpert SF: Ethambutol in the initial treatment of pulmonary tuberculosis. *Amer Rev Resp Dis* 107:177-190, 1973. 64. Preventive therapy of tuberculosis infections. (ATS official statement) *Amer Rev Resp Dis* 110:371-374, 1974. 65. Ferebee SH Controlled chemoprophylaxis trials in tuberculosis—a general review, in Advances in Tuberculosis Research, Vol. 17, Basal and New York, S. Karger, 1970, pp. 32-106, 1970, as referenced in Moulding, T. Chemoprophylaxis of tuberculosis: When is the benefit worth the risk and cost? *Ann Intern Med* 74:761-770, 1971. 66. Mitchell JR, Zimmerman HJ, Isak KG et al: Isoniazid liver injury: Clinical spectrum, pathology and probably pathogenesis. *Ann Intern Med* 84:181-192, 1976. 67. Leontic EA Respiratory disease in pregnancy. *Med Clin N Amer* 61:119-121, 1977.

Mixed Connective Tissue Disease in a Child

JOHN P. HOWARD, M.D.

A fatal case of mixed connective tissue disease in a child is described, including post-mortem findings.

Introduction

THE syndrome of mixed connective tissue disease (MCTD) has been described during the past decade.[1] This apparent entity in the collagen diseases has been reported in children[2–6] and is characterized by (1) high serum titers of speckled fluorescent antinuclear antibody, (2) antibody to ribonucleoprotein antigen, and (3) a clinical picture with overlapping features of systemic lupus erythematosus, scleroderma and polymyositis. The following is a case report of a child with this illness which ended fatally.

Case Report

The patient was an 11 5/12-year-old black female at the time of her initial presentation at our clinic. She had apparently been well until three months prior to this visit when she developed a viral illness of two-three weeks duration with cough, vomiting and sore throat, also experienced by other family members. Subsequently, she had felt weak, tired, with reported weight loss and anorexia, and slept longer; no fever had been noted; further, during the preceding three weeks, she complained of pain in the muscles of her chest, shoulders, thighs and lower back. The weakness necessitated assistance getting out of bed and the inability either to ascend or descend stairs. She was one of six children and both of her parents were reported to have arthritis with her mother diagnosed as having Rheumatoid Arthritis and Systemic Lupus Erythematosus.

On physical examination, this pubsecent female was noted to be slouched over in the sitting position with her head drooped forward. She was 163 cm (64 inches) in height and weighed 51 kg (112 pounds). She had difficulty in opening her mouth widely, her anterior cervical nodes diffusely enlarged, her pharynx was red, the liver and spleen were both palpable 2 cm below the costal margins. The neuromuscular evaluation revealed a slight decrease in the deltoid and triceps musculature, the interosseous muscles of the hands appeared slightly wasted with decrease in the strength of her fingers and inability to make a complete fist or to extend fully her hands or fingers. The deep tendon reflexes of the biceps, triceps and brachial radialis muscles were absent. She was unable to raise her arms more than 60 degrees from the vertical postition or to extend them over her head. Although she had good adduction of her hips, there was poor abduction; her deep tendon reflexes at the patella and ankle were absent; she was neither able to raise her straightened legs more than 6 inches nor stand or step onto a stool.

A complete blood count revealed a hemoglobin of 12.7 gms% and A WBC of 6,800/mm^3 with 83% neutrophils, 14% lymphocytes, 2% eosinophils and 1% monocytes. The platelet count was 375,000/mm^3. The LDH was 1,268 I.U.: CPK was 11,040 I.U.: SGOT was 777 units; aldolase was 163.9 mu/ml. The corrected erythrocyte sedimentation rate was 36 mm/hour. The prothrombin time was 12.9 seconds (control was 11.4 seconds); the partial thromboplastin time was 36 seconds (control was 28 seconds).

From the Department of Pediatrics, University of Louisville School of Medicine Health Sciences Center, Louisville, KY

The urine myoglobin, hepatitis B antigen, and mononuclear spot test were all negative. The toxoplasma immunofluorescent antigen was negative at titers of 1:16 and 1:64. Urinalysis was within normal limits; she had a BUN of 19 mg% and creatinine of 0.4 mg%; the 24-hour urine collections revealed a creatinine of 204 mgm and a total protein of 13 mgm in 1320 ml. The creatinine clearances were 62 ml/minute and 42 ml/minute.

A serum complement profile for C_3 (142 mg%), C_4 (33 mg%) and CH 100 (190 u/ml) was within normal limits. However, the protein electrophoresis was 8.8 gm/dl with an IgG of 3154 mg/dl (normal = 305-1192): IgE of 203 mg/dl (normal less than 116 mg/dl): IgM of 137 mg/dl (normal = 33-200), and IgA of 166 mg/dl (normal = 17-158).

Results of antinuclear antibody studies are given in Table I.

Roentgenographic examinations of chest, cervical and lumbosacral spines, hands, wrists, hips, shoulders and esophagus (barium study) were all within normal limits; her bone age was 13 years.

The electrocardiogram was interpreted as being within normal limits.

A biopsy of the left deltoid muscle was interpreted as showing myositis consistent with dermatomyositis; however, a skin biopsy revealed no diagnostic abnormality and immunofluorescent studies were negative.

An EMG was interpreted as having a pure myopathic picture proximally with a mixed myoneuropathic picture distally.

Pulmonary function testing demonstrated severe restrictive ventilatory defect; the vital capacity was 15% of predicted; a forced expiratory volume was 16.1% of predicted; the direct maximum ventilatory volume was 16.9% and the indirect was 11.9% of predicted.

A renal consultant believed that there was stable, normal renal function but commented that the child's creatinine was not a good indication of actual glomerular filtration rate and that the serum creatinine value of 0.4 mg% was actually low for the child's size.

Her hospital course showed some improvement in mobility assisted by daily physical therapy; however, difficulty in swallowing and cough persisted. She was discharged after 20 days and eventually transferred to a nursing care facility. However, the site of her muscle biopsy became infected with *Micrococcus aureus* for which she received appropriate antimicrobial therapy. She did receive 80 units of ACTH intramuscularly on the seventh day of hospitalization, as well as, 40 mgm of Prednisone orally on the 12th, 13th and subsequently every other day of her hospitalization as a single dose. Unfortunately, during her stay in the nursing care facility, she developed a cardio-respiratory arrest and died despite resuscitative efforts one week after discharge from the hospital.

A post-mortem examination limited to the torso was performed. This revealed a diffuse myocarditis with interstitial fibrosis, and focal granular myocardial necrosis, bronochopneumonia of the right lower lube, congestive splenomegaly, and cortical hyperplasia with cortical adenomas of the adrenal gland. Post-mortem blood bacteriologic and viral cultures were negative. Electron microscopy revealed focal myofibril degeneration of skeletal muscle and focal mesangial glomerulonephritis. An immunofluorescent study of the kidney revealed positive IgM and fibrin deposition in the glomeruli.

Comment

The total symptomatic duration of illness in this patient was apparently three months. The prevailing symptomatology was polymyositis with associated weakness. The marked biochemical abnormalities in the muscle enzyme studies correlated well with the EMG and muscle biopsy changes.

Immunologic data about this patient demonstrate the characteristic speckled antinuclear antibody (ANA) pattern. In addition, she had anti-robonucleoprotein antibodies (anti-RNP) which represent the extractable nuclear antigen (ENA) fraction or acidic nuclear protein that is sensitive to ribonuclease (RN_{ase}), similar to[7] the "Mo" antigen described by Mattioli and Reichler[8]; whereas, she had a negative reaction to the acidic

TABLE I

Selected Immunologic Data

	PATIENT	PATIENT'S MOTHER
ANA Pattern	3+ speckled, homogeneous with Nucleoli (1:1,280)	+ (1:160)
Rheumatoid Factor	+ (1:10,240)	+ (1:1,280)
ENA Antibody**	+ (1:4,000)	–
Anti-RNP***	+	–
Anti-Sm***	–	–
Anti-DNA***	–	+ (1:80)
Anti-native DNA****	+	NA
Latex Fixation	+ (1:256)	NA
LE Preparation	–*	NA

* positive one week after steroid therapy initiated

Abbreviations used:
+ = positive
– = negative
NA = not available
ANA = antinuclear antibody
ENA = extractable nuclear antigen
RNP = nuclear ribonucleoprotein fraction
Sm = Soluble nuclear antigen
DNA = Deoxyribonucleic acid
LE = Lupus Erythematosus
** = Hemagglutination
*** = Immunodiffusion
**** = Counter Immunelectrophoresis

nuclear protein antigen (anti-Sm) reputed to be component of ENA insensitive or resistant to RN_{ase}[9]. Further, she had antibodies to native DNA (anti-native DNA) which has been reported in some patients with MCTD, particularly those with renal disease.[10]

It has been demonstrated in siblings with MCTD by Horn and associates[11] that they had a similar HLA genotype (11,12/2,12); unfortunately, genotyping was not performed in our patient.

Pulmonary involvement in MCTD has been noted; it should be assessed even in patients without symptoms, for they have been seen to have abnormal pulmonary function test.[12]

The initial lymphocytopenia (952/mm^3) that this patient had has been noted earlier,[13] and it might be ascribed to cold-reactive lymphocytotoxic antibodies although no statistical correlation has been ascertained.[14]

Raynaud's phenomenon, cutaneous manifestations and arthritis were not evident in our patient; these have been significant findings in previous reports.

Death in our patient was attributed by the pathologist to her myocarditis; the finding of myocardial involvement has been noted previously and thought by some to be a more frequent occurence in children with MCTD.[4]

The renal involvement which this child had has also been noted. The finding of focal mesangial glomerulonephritis with IgM and fibrin deposition in the glomeruli in this case has been reported in MCTD even where there has been no clinical evidence of renal disease[15–18]; the findings in our patient may necessitate further evaluation of the renal system in patients with MCTD.

Steroid therapy has been reported to be successful in this syndrome[1,3,6]; unfortunately, in this particular child, the outcome of treatment was unsuccessful, even though her adrenals demonstrated cortical hyperplasia which might indicate the effect of ACTH upon this organ.

Finally, this presentation should draw one's attention to the need for more information about this disorder and its relationship to other collagen diseases, as well as the need for rigorous monitoring of those individuals with swallowing difficulties and profound muscle weakness.

Conclusions

An 11-year-old black female with a history of weakness and muscle aches for three months was found to have Mixed Connective Tissue Disease. She had (1) elevated serum titers of speckled fluorescent antinuclear antibody, (2) antibody to ribonucleoprotein antigen and (3) a clinical picture overlapping features of systemic lupus erythematosus and polymyositis. Death was attributed to myocarditis. Focal mesangial glomerulonephritis was detected.

References 1. Sharp GC, Irvin WS, Tan EM, Gould RG and Holman HR: Mixed Connective Tissue Disease—An Apparently Distinct Rheumatic Disease Syndrome Associated with a Specific Antibody to an Extractable Nuclear Antigen (ENA), *Am J Med*, 52:148-159, 1972. 2. Sanders DY, Huntley CC, and Sharp GC: Mixed Connective Tissue Disease in a Child, *J Pediatrics* 83:642-645, 1973. 3. Baldassare A, Weiss T, Auclair R and Zuckner J: Mixed Connective Tissue Disease (MCTD) in Children, *Arthritis Rheum*, 19:788, 1976 (abstr.). 4. Singsen BH, Bernstein BH, Kronreich HK, King KK, Hanson V and Tan EM: Mixed Connective Tissue Disease in Childhood. A clinical and serologic study, *J Pediatrics*, 90:893-900, 1977. 5. Fraga A, Gudino J, Ramos-Niembro R and Alarcon-Segovia D: Mixed Connective Tissue Disease in Childhood. Relationship with Sjogren's Syndrome, *Am J Dis* Child, 132:263-265, 1978. 6. Peskett SA, Fizzman AP and Howard A: Mixed Connective Tissue Disease in Children, *Rheumatol Rehabil*, 17:245-248, 1978. 7. Northway JD and Tan EM: Differentiation of Antinuclear Antibodies Giving Speckled Staining Patterns in Immunofluorescence, *Clin Im-*

munol Immunopathol, 1:140-154, 1972. 8. Mattioli M and Reichlin M: Characterization of a Soluble Nuclear Ribonucleoprotein Antigen Reactive with SLE Sera, *J Immunol,* 107:1281-1290, 1971. 9. Tan EM, Northway JD and Pinnas JL: The Clinical Significance of Antinuclear Antibodies, *Postgrad Med,* 54(5):143-150, 1973. 10. Sharp GC, Irvin WS, May CM, Holman HR, McDuffie FC, Hess EV and Schmid FR: Association of Antibodies to Ribonucleoprotein and Sm Antigens with Mixed Connective Tissue Disease, Systemic Lupus Erythematosus and Other Rheumatic Diseases, *N Engl J Med,* 295:1149-1154, 1976. 11. Horn HR, Kapur JJ and Walker SE: Mixed Connective Tissue Disease in Siblings, *Arthritis Rheum,* 21:709-714, 1978. 12. Harmon C, Wolfe F, Lillard S, Held C, Gordon R and Sharp GC: Pulmonary Involvement in Mixed Connective Tissue Disease (MCTD), *Arthritis Rheum,* 19:801, 1976 (abstr.). 13. Rivero SJ, Diaz-Jouanen E and Alarcon-Segovia D: Lymphopenia in Systemic Lupus Erythematosus. Clinical, diagnostic and prognostic significance, *Arthritis Rheum* 21:295-305, 1978. 14. Diaz-Jouanen E, Llorente L, Ramos-Niembro F and Alarcon-Segovia D: Cold-reactive Lymphocytotoxic Antibodies in Mixed Connective Tissue Disease *J Rheumatol,* 4:4-10, 1977. 15. Rao KV, Berkseth RO, Crosson JT, Rais L and Shapiro FL: Immunecomplex Nephritis in Mixed Connective Tissue Disease, *Ann Intern Med,* 84:174-175, 1976. 16. Fuller TJ, Richman AV, Auerbach D, Alexander RW, Lottenberg R and Longley S: Immune-complex Glomerulonephritis in a Patient with Mixed Connective Tissue Disease, *Am J Med,* 62:761-764, 1977. 17. Bennett RM and Spargo BH: Immune Complex Nephropathy in Mixed Connective Tissue Disease, *Am J Med,* 63:534-541, 1977. 18. Jones, MD, Osterholm RK, Wilson RB, Martin FH, Commers JR and Bachmayer JD: Fatal Pulmonary Hypertension and Resolving Immune-complex Glomerulonephritis in Mixed Connective Tissue Disease, *Am J Med,* 65:855-863, 1978.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Manage your patient time for quality care. Manage your practice for greater efficiency.

A medical practice is communications intensive. Bell – at the forefront of communications knowledge – offers systems and services to help you make more and better use of your doctor-patient time. And increase staff productivity by increasing efficiency in office procedures.



Eliminating manual information handling reduces clerical work so your staff can focus on patient care.

Streamline communications.
Numerous practice management problems are fundamentally related to communications. It takes an average of 75 information exchanges, verbal and on paper, involving doctors, patients, office personnel, hospitals, outside providers, to move each patient from appointment scheduling through payment processing. Bell communications systems can help you manage these exchanges more effectively.



Improve patient flow. And cash flow.
Cut down or cover no shows. Speed collections. Reclaim bad debt write-offs. A Bell Phone-Power Program can teach your staff proven techniques for handling these problems better.

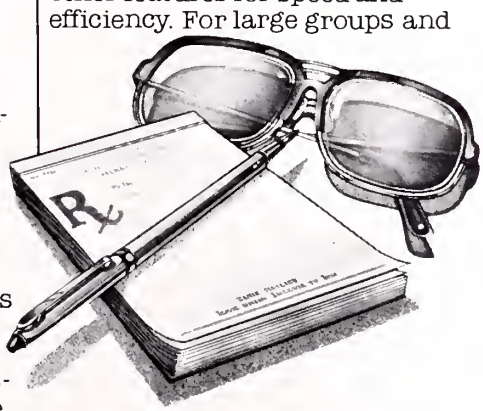
Reduce patient impatience.
Decrease waiting time. Eliminate conflicting appointments. Level out peaks and valleys in patient load. Bell data terminals that access automated scheduling systems can help avoid clerical errors and needless disruption of the doctor's schedule.

Improve staff coordination.
Eliminate time-consuming footwork. Bell communications systems can provide instant inter-office consultation, personnel tracking, patient location.

Expedite billing and claims processing.
Recapture lost-to-error billings. Reduce turn-around time on third party reimbursements. Relieve the paperwork burden. Bell data terminals such as the Dataspeed® 40 will access a computer or service bureau to provide quick and accurate recording and retrieval of billing and claims information.

Earn CME credit.
Bell offers medical-oriented seminars to show you how the latest communications technology and techniques can improve your practice management procedures. In one short, enlightening forum, you'll gain valuable information to help you improve practice profitability. And you'll earn Category 2 CME credit.

Gain from advanced technology.
Whether your practice is solo or group, a Bell communications system with features for the future can help you manage better today. The ComKey® family of systems offers intercoms with one-button signaling and hands-free answering, multi-line conferencing for discussions with several colleagues at once, and other features for speed and efficiency. For large groups and clinics, a sophisticated Horizon® system or a totally electronic Dimension® PBX offers the flexibility large practices demand for unique communications needs.



Call on the specialists.
South Central Bell has account executives trained to solve the unique communications problems of medical practices, solo and group. Put our knowledge to work for you. Call toll free, **1-800-633-6272,** Ext. 100 (in Alabama, 1-800-272-8484). Or complete and mail the coupon below. **South Central Bell.**



Advanced ComKey® systems with hands-free intercom keep receptionists, nurses, technicians within instant reach.

The knowledge business

South Central Bell
Suite 100, P.O. Box 336
Birmingham, Alabama 35201

☐ **Yes,** we want to improve our practice management procedures. Tell me more about:
- ☐ Phone-Power for medical practices
- ☐ Billing/claims processing
- ☐ Automated scheduling
- ☐ ComKey® systems ☐ Data terminals
- ☐ Electronic communications systems for groups/clinics
- ☐ Bell's medical-oriented seminars that earn CME credit.

Name _____
Practice Name _____
☐ Solo ☐ Group/No. Physicians _____
Address _____
City/State/Zip _____
Telephone ( ) _____

Call toll free: 1-800-633-6272
Ask for Extension 100.
(In Alabama, dial 1-800-272-8484)

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

Pioneers in Medicine
For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.





Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8–5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10–20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq elemental potassium. The usual preventative dose of potassium 20 mEq per day while therapeutic doses range from 30 mEq 100 mEq per day. Because of the potential for gastrointesti irritation, undiluted large single doses (30 ml or more) or TWIN are to be avoided.

Deviations from this schedule may be indicated, since no avera total daily dose can be defined, but must be governed by clo observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a prescr tion.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the follow ingredients:

Pentylenetetrazol	30 r
Niacin	50 r
Vitamin B-1	10 r
Vitamin B-2	5 r
Vitamin B-6	1 r
Vitamin B-12	3 m
Choline	100 r
Inositol	50 r
Manganese (as Manganese Sulfate)	1 r
Magnesium (as Magnesium Sulfate)	2 r
Zinc (as Zinc Sulfate)	1 r
Iron (as Ferric Pyrophosphate, Soluble)	22 r
Alcohol	1

INDICATIONS AND USAGE: SU-TON contains pentylenetetra which may be helpful in the older patient as an analeptic ag when mental confusion and memory defects are present. SU-T also contains vitamins, trace minerals, and iron, for those patie who may benefit by preventing the development of a deficie

CONTRAINDICATIONS: Epilepsy, convulsive disorders or kno history of sensitivity to any of the listed active ingredients.

WARNINGS: The safety of this preparation during pregnancy lactation has not been established. Use of this drug requires the physician evaluate the potential benefits of the drug aga any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contraind tions to pentylenetetrazol, it should be used with cautio epileptic patients or those known to have a low convul threshold or a focal brain lesion. Caution should be exerc when treating patients with high doses of SU-TON who have h disease. While pentylenetetrazol does not act directly on myocardium, the results from central vagal stimulation c cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high doses produce toxic symptoms typical of central nervous sys stimulants, which act on the higher motor centers and the sp cord. Convulsions resulting from this drug are spontaneous are not induced by external stimuli. They usually last for se minutes and are followed by profound depression respiratory paralysis. Death has been reported from the inges of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been reported SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose ma due principally from overstimulation of the central ner system and from excessive vasodilatation with resul autonomic nervous system imbalance. The symptoms may inc the following: vomiting, agitation, tremors, hyperreflexia, sv ing, confusion, hallucinations, headache, hyperpyr tachycardia. Treatment consists of appropriate suppo measures. If signs and symptoms are not too severe and patient is conscious, gastric evacuation may be accomplishe induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate cl tion and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (15 times a day 20-30 minutes before meals. This drug is not for children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-00

CAUTION: Federal law prohibits dispensing without a pre tion.

AP-001 5-80 Printed in U

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

First Class Permit No. 1563, Shreveport, LA.

Postage will be paid by addressee

BOOTS PHARMACEUTICALS, INC.

Department 0
6540 Line Avenue
Shreveport, LA. 71106

BOOTS PHARMACEUTICA INC.

Shreveport, Louisiana 71106
Pioneers in medicine for the f

Recent Advances In Management of Glaucoma

Several new advances have been made in the medical and surgical management of glaucoma. Timolol, a topical beta blocker, has resulted in control of intraocular pressure in many patients who would otherwise require surgery, and also in patients who cannot tolerate the side-effects noted with other glaucoma medications. Systemic side-effects have been minimal with a bradycardia noted in some individuals. It should not be used in asthmatics, and with caution in cardiovascular disease.

Pilocarpine, the main stay of glaucoma therapy, is available in a sustained release delivery form, incorporated into a thin wafer inserted into the conjunctival cul-de-sac. The side-effects of headache and blurring noted in many patients with conventional pilocarpine drops are reduced with this method. Dupivalyl epinephrine, a pro-drug form of epinephrine which minimizes its ocular side-effects, should be available for use in the near future.

Those individuals requiring glaucoma surgery have benefited by the development of microsurgical techniques for control of their glaucoma. The most common of these is trabeculectomy. A scleral flap is dissected with removal of a section of limbal tissue, which allows egress of aqueous from the anterior chamber beneath the scleral flap and into the subconjunctival space. The control of glaucoma with this procedure is approximately the same as other glaucoma procedures. However, complications noted with standard glaucoma procedures such as flat anterior chamber and cataract formation are infrequent. Another microsurgical technique, trabeculotomy, is being used with success in patients with congenital glaucoma.

Lasar iridotomy, which produces a hole in the iris, can be used in selected instances of glaucoma to relieve pupillary block which obstructs aqueous from draining from behind the iris through the pupil and into the normal outflow channels. This replaces the need for a standard surgical procedure. Patients with diabetes and major retinal vascular occlusions of the eye may have neovascular glaucoma. The laser has been used for this problem by treating abnormal blood vessels which obstruct the outflow channels.

These new treatment modalities have significantly improved control of intraocular pressure, while also decreasing the incidence of side-effects which have limited glaucoma therapy in the past.

RICHARD A. KIELAR, M.D.

Provided by the Lexington Clinic, 1221 S. Broadway, Lexington, KY, at the request of the KMA Continuing Medical Education Committee

PROFILE

KMA President

ON Wednesday, September 24, Frank R. Pitzer, M.D., took the oath of office as President of the Kentucky Medical Association and the 1980-81 Associational year began.

Doctor Pitzer uses one word to describe how he sees his year as President of the KMA—aggressive. He wants to be aggressive in his efforts to reach physicians and their families, hoping to bring about "Physician Awareness," his theme during the coming year.

Doctor Pitzer explains, "I would like to be able to make physicians aware of the facts about the world they now must survive in, to very bluntly point out that we are going to have to change the way we go about our business. It will be conducted in an open arena with the scrutiny of government, hospitals, consumer groups and our peers."

As a young physician Doctor Pitzer says that he was taught to be a good doctor and to concentrate on the technical aspects and the art of medicine. "We were completely naive about the political, bureaucratic world in which we were to be thrust." This is why, he says, physicians now have to become involved in the political process. "We can no longer be reclusive in the havens of our offices, hospitals or clinics and hope to survive."

To accomplish his "Physician Awareness" program, Doctor Pitzer plans to begin by using the President's Page of *The Journal* to clearly express his opinions on what actions he feels need to be taken.

He also intends to visit local medical societies and large hospital staffs in Kentucky, taking KMA programs to them and making KMA aware of their problems. Another of his goals is to talk personally with as many doctors as possible in the state. He sees this as the best way to convince physicians to become involved in the KMA. "One of the reasons we took the time to become physicians and spent years in training is because we were going to be able to set our own goals. Now we're forced into an environment where we won't be able to do this unless we are willing to take the time to maintain our freedom."

Doctor Pitzer feels that the KMA President's role should include being a goodwill ambassador, a spokesperson trying to unify physicians. "We have a well run organization, operated in a traditional manner and it's very effective." This is why he encourages specialty groups to use and rely on KMA's resources. "The expertise offered





Frank R. Pitzer, M.D.

by KMA is something that each group cannot afford individually such as lobbyists, lawyers, accountants and facilities. I believe that everyone's goals, whether a surgeon, radiologist or family practitioner, can best be obtained through KMA. We certainly don't want specialty groups to feel we are trying to control their organizations. We want them to know we are here to assist them in obtaining their goals, which are KMA's goals."

To the individual doctor the KMA offers the strength of a unified group. Doctor Pitzer says, "It gives everyone a chance to associate with fellow physicians in both professional and educational activities. KMA not only provides a political and administrative base, it also provides educational opportunities."

Doctor Pitzer particularly encourages young physicians to join the medical association and become active in it. While some may feel that KMA is rigidly structured, this is not so. He points out that all committee functions are open to suggestions from physicians; there is an open-door policy in the House of Delegates and the Board of Trustees to any physician in the state and there are no limits except time and effort to any physician who would like to move up through the structure of KMA.

This same message is directed especially to women physicians in Kentucky. Doctor Pitzer is encouraged by the increasing number of women physicians involved in the KMA House of Delegates and in specialty groups, but he warns that it is even more important for them to become active in the KMA committees and Board of Trustees. "Physicians are physicians. Medicine is one profession where women will have no opposition because of their sex. The KMA does not address an issue with regard to sex. We discuss medical, fiscal and political problems. Anything women physicians want to accomplish through an organization, they can accomplish at KMA."

Another area Doctor Pitzer feels will require aggressive action is in health planning. Health planning is nothing new to physicians. They have been the only health planners for years, but recently health planning has become the statutory concern of consumer interest groups, voluntary health agencies, allied health societies and health education institutions. Doctor Pitzer explains, "Health planners, who are not medically educated, have a primary goal of social change, not medical change. Our role as physicians is to become involved and realize it is a new ballgame. We must play by a new set of rules."





Doctor Pitzer knows these rules quite well after being a board member of HSA for six years. "It requires time," he says, "to master the bureaucratic foreign language so that our programs can be presented effectively."

He attended his last board meeting in June this year but Doctor Pitzer is concerned that his fellow physicians see him strictly as a "health planner" instead of a physician. This poses an identity problem. He is ready to answer this charge. "While we're practicing medicine the planners are planning and we've got to work a little harder to make sure we do both. We're at a disadvantage because we have to do two things, but we can if we're willing to make the effort."

In this regard, Doctor Pitzer feels that physicians need a renewed sense of confident action. His attitude is positive. "It upsets me to see physicians so negative. Instead of spending all our time fighting the issue after the fact, we need to be leading the pack. We need to be setting the trends, controlling the conditions which affect the practice. We have not always done this in the past but this is changing rapidly."

Finding ways to occupy his time is not a problem for Doctor Pitzer. As well as being President of KMA, he is Director of Laboratories at Jennie Stuart Memorial Hospital, Hopkinsville Laboratories Incorporated and Western State Hospital. He still finds time though for his favorite pastime—horses.

For about five years Doctor Pitzer has been raising thoroughbred horses. What makes this hobby especially enjoyable is his family's involvement. "This is something we all participate in together. It's a common ground where we can all become involved."

Doctor Pitzer has two daughters. His older Rhonda Leigh Johnston, is a gemologist who, with her husband Charles, owns a jewelry store in Hopkinsville. They have a two-year-old son, Benjamin. His younger daughter Jennifer, 18, is a freshman this year at the University of Kentucky, majoring in animal sciences.

The Pitzers live on a farm in southern Christian County, and Doctor Pitzer's wife, Shirley Jo, stays busy, he says, managing the farm, horses, dogs and kids. He and his wife met while she was in nurse's training at the University of Virginia in Charlottesville.

Doctor Pitzer is confident about the future of medicine. But he won't hesitate, he says, "to sound like a preacher at a revival" when it comes to speaking out for medicine and encouraging physicians that they have the ability to control the future.



Text by Donna M. Young
Photos by Joseph A. Witherington, Jr.

Cost-effective: the new nemesis

THE recent recommendation of the American Cancer Society that cervical PAP smears be performed every three years after two negative exams one year apart has produced substantial turmoil in medical circles. The basis of this decision is predicated on statistically derived conclusions that annual smears are not cost effective, *ie,* there is inconclusive evidence that the additional cost of taking annual smears will detect significantly more cervical neoplasias than if performed every third year. Review of this recommendation may be expected.

In these times of rising costs, the greater demands for wider distribution of limited funds, we may expect continual recommendations for review of medical services—with possible limitations. A sense of priority surrounds us.

In strict economic terms cost-effectiveness is sound. Outcome and input can be measured and adjustments made, if possible and feasible, to produce an effective ratio, *viz,* a profit. In other arenas such as social and political, accurate measurement is not so easy a task, and interpretation of the ratio outcome/input becomes a matter of personal bias in many instances. Many examples can be cited. The political doves will argue that a multi-billion dollar defense budget is not politically cost-effective. The non-athletes might argue that expenditure of millions of dollars for football stadia is difficult to justify.

Can the same somewhat subjective arguments be mounted against some medical practices particularly in a time of increasing medical costs and suggested limited resources?

Banners have been raised against unnecessary x-rays and laboratory tests, unjustified surgical procedures, unwarranted medical therapies.

Sometimes the argument is made that the procedures are medically unsound. More often than not the argument is raised, as with the PAP smears, that they are cost-ineffective.

As physicians it is our responsibility to make repeated daily decisions which are first of all based primarily on sound medical knowledge. Secondary considerations, *eg,* the economics of a given decision, however, should not be completely ignored.

It will be worthwhile in some instances to review our thinking about the economics of medicine. Conversely, we should not compromise the health of any patient by bowing to the god of cost-effectiveness.

GRS

SOMETIMES TOMORROW COMES TOO SOON

We know that when a person enters practice, he or she cannot afford or estimate all the future disability needs.

The trouble is that if we don't stay in touch, time passes and your health changes and we cannot issue the increase you desire. Invariably this happens to our older friends and insureds.

If you've been in practice for a while, now is a good time to make sure you could live on the weekly benefit you first selected for your disability protection.

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

How Does the Idea of a Public Restroom in the Privacy of Your Home Strike You?

ROBERT H. ELSNER

With all the furor over CAT scanners and certificate-of-need provisions for more and more hospital and medical facilities, one wonders where it might eventually lead.

The health planners and other "experts" who've never practiced medicine somehow feel the solution lies in more controls, more rigid guidelines and layers of regulation.

An interesting—if not unlikely—analogy was submitted recently by a Kansas City physician, John K. Layle, M.D. He proposed that if some of the bureaucratic logic were transferred from HEW to the Department of Housing & Urban Development (HUD), we might see bathrooms treated as CAT scanners. Dr. Layle elaborates:

"First, we would see dazzling government statistics showing there is a nationwide plumbing profligacy which is 'skyrocketing' already intolerable housing costs; for example:

1. The average person uses the bathroom only about one hour in each twenty-four. Therefore, they would say, less than twelve people per bathroom is clearly an unconscionable extravagance.

2. We have more bathrooms in Kansas City (Los Angeles?) than in the entire country of Afghanistan!

3. There are 67,656,566 bathrooms in the U.S.—at least 51-million more than we actually need. At installation and maintenance costs of about $5,000 each, we would save $255-billion just by cutting out the excess. That would pay the president's salary for the next two-million years!

"These statistics would lead to 'guidelines': It is un-American to build more than two houses per block with bathrooms. The other houses can share.

"An HSA-like 'Planning Agency' would be created to force errant homebuilders into compliance with the guidelines. As with the CATs, the Planning Agency will assert: 'Most people do not really need bathrooms; they just want them as status symbols.'

"People wanting bathrooms will, like hospitals, have to submit 'Certificate of Need' forms which will be processed with agonizing slowness because, like HSAs, the Planning Agency will claim it needs additional funding.

"Neighbors will be pitted against neighbor, just as hospitals are now, competing to see who on the block will be allowed to have a bathroom.

"Homebuilders who, like the hospitals, try to satisfy their customers' needs in spite of such coercion, will be publicly castigated for their 'public-be-damned' attitude."

Sound far-fetched? Of course it is.

But out there someplace—maybe in Sacramento and certainly in Washington—there might well be some planners who would impose just such a scheme, or something almost as ridiculous. As long as it didn't apply to their bathrooms, or whatever it is that needs to be controlled.

Reprinted from LACMA Physician, Bulletin of the Los Angeles County Medical Association, June 21, 1979. Mr. Elsner is executive director of the Los Angeles County Medical Association.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

Tenuate®
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence*: Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema. *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M.: A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

Merrell

9 4672 (Y957A)

Overweight may not always be simple... complications can develop.*

Complicated or not...

Tenuate® Dospan® ©IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres® has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

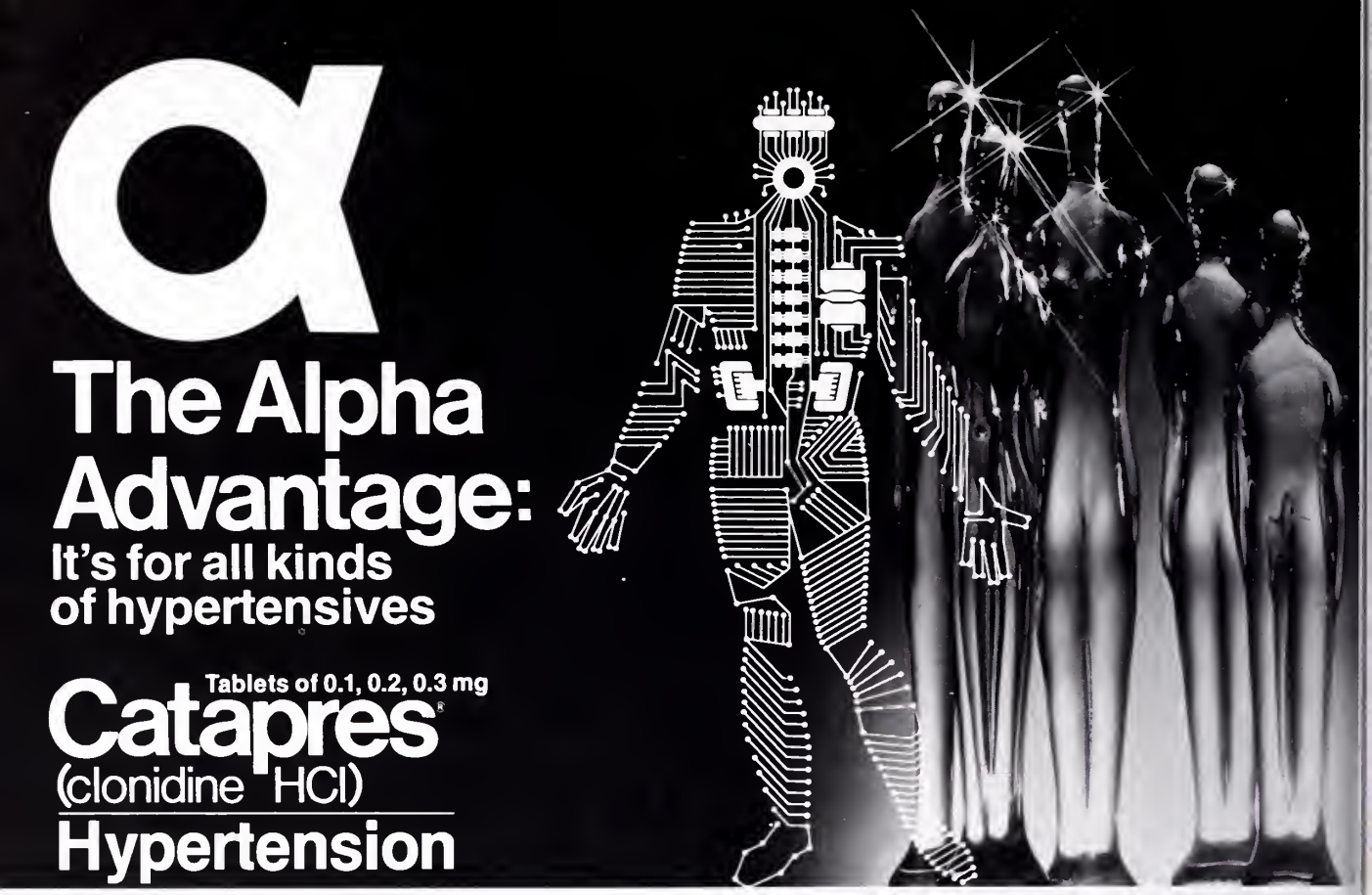
Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets



Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension



The Alpha Advantage:

It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at break fast and 0.1 mg at bedtime. Some patients may benef from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 mont longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness sedation. Constipation, dizziness, headache, and fatigue have been repo Generally these effects tend to diminish with continued therapy. The follo reactions have been associated with the drug, some of them rarely. (In s instances an exact causal relationship has not been established.) These inc Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormaliti liver function tests; one report of possible drug-induced hepatitis without ict and hyperbilirubinemia in a patient receiving clonidine hydrochloride, c thalidone and papaverine hydrochloride. Weight gain, transient elevation of t glucose, or serum creatine phosphokinase: congestive heart failure, Rayna phenomenon; vivid dreams or nightmares, insomnia, other behavioral char nervousness, restlessness, anxiety and mental depression. Also rash, gioneurotic edema, hives, urticaria, thinning of the hair, pruritus not assoc with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryt itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecoma weakly positive Coombs' test, asymptomatic electrocardiographic abnorma manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished o sent reflexes and vomiting followed the accidental ingestion of Catapres (clon hydrochloride) by several children from 19 months to 5 years of age. Ga lavage and administration of an analeptic and vasopressor led to complet covery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-m intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.

Under license from Boehringer Ingelheim GmbH

Boehringer Ingelheim

Boehringer Ingelheim I
Ridgefield, CT 06877

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

Abuse of multiple drugs has grown in recent years. The following cases show abuse of trihexyphenidyl (Artane).

S and G were white male patients both age 39, in long-term outpatient treatment at a comprehensive care center in Eastern Kentucky, carried on I.M. fluphenazine (Prolixin D) 12.5 mg. and 25 mg. respectively ever two weeks, and also oral trihexyphenidyl (Artane) 5 mg., bid and qid respectively. When I first saw them I prescribed a 100-day supply, but both men came back in 77 days, saying they were out of Artane.

S had been in state hospitals nine times with diagnosis catatonic schizophrenia. He was a chronic alcoholic who admitted that he had stayed drunk three years repeatedly after his wife left him. He had an ulcer and took oral medicine for diabetes. He said that he had loaned 16 of his Artane pills to G, who was evidently taking more Artane than prescribed. He added that his sister (a known bootlegger and suspected seller of various illegal drugs) had stolen 25 of his Artanes and was selling them on the illegal drug market for a dollar each.

G, diagnosed paranoid schizophrenia, had killed his first wife and threatened his second, accusing her of putting ground glass in his coffee. I suspected that G had "borrowed" the Artane from S by threats.

Both patients refused to take Prolixin injections until given more Artane. Though I felt in some danger from the paranoid killer, I refused to prescribe more Artane until the previous prescription would have run out, and then I reduced G's Artane to b.i.d. Both patients continued to demand additional Artane during the 16 months I saw them. The problem was handled satisfactorily by prescribing Artane for only two weeks at a time and giving the prescription each time only after the Prolixin injection was taken.

I consider these to be cases of "drug abuse" or "street drug" use of Artane because of (1) taking more drug than prescribed and running out early; (2) returning to the doctor to demand more drug; (3) getting drug (perhaps by force or threat) from another patient for whom it had been prescribed; and (4) selling the pills to local people who habitually bought and abused multiple drugs.

Joseph C. Finney, M.D.
Lexington, KY

IT'S HIGHLY RECOMMENDED... AND FOR GOOD REASONS



1. provides broad-spectrum, overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep
2. helps prevent topical infections, and treats those that have already started
3. it's good medicine for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses; and it's painless and cosmetically pleasing
4. contains three antibiotics that are rarely used systemically
5. you can recommend it in any of the three convenient package sizes: 1 oz tube, ½ oz tube, or the versatile, single-use foil packet



selected by NASA for the Apollo and Skylab missions

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs. in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

ONE HUNDRED YEARS WELLCOME

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Stephen Z. Smith, M.D.
Assistant Scientific Editor

Basic Histology

L.C. Junqueira and J. Carneiro, Lange Medical Publications, 1980, 504 pages

An artistic flare, an attention to practical detail and avoidance of controversy make this latest third edition of *Basic Histology* extremely useful and readable. Doctors Junqueira and Carneiro are obviously at ease with the English language and have well disguised their Brazilian nationality with impeccable syntax and vocabulary.

Initially the reader will be schooled in elemental histology. The cell is pictured and described with almost telescopic clarity. Epithelial, adiposal, cartilage, bone, connective and muscle tissue are subsequently explained in sufficient detail that one can comfortably traverse pathology. The concluding one-third of the book is a gallant but in places inadequate effort to cover human systemic histology. The novice needs basic lessons in cellular biology. This concluding section should be sacrificed and its pages incorporated into embellishing the front part of the book.

The use of drawings, both electron microscope and classic photomicrographs and tables is awesome. A picture is more than adequate substitute for the written word. Quality is maintained throughout the book. Rather gaunt when compared to its ancestral hardback tomes, this histology text is much more palatable for the amateur.

To confute the accusation that histology is seasoned but not ripening, the authors combine classic teachings with recent cellular biology break-throughs. Their bibliography is an excellent collection of obtainable information and could suffice as a springboard for the curious.

Armed with this $15 bargain, the student learning or the graduate reviewing will be well prepared for the spectre of histology.

Surgeon's Log

Andrew V. Mason, M.D., Christopher Publishing House, 1980, 395 pages

My reaction to *Surgeon's Log* ranged from rapprochment with the main characters daily vignettes to criticisms of its glorification bestowed on the unrealistic "super" doctor. Most notable is that this book is a novel, given latitude in presenting material to the reader. Somehow the medical title and contents promise the reader no misinformation. It took a virtual culinary talent to mix many clinical situations with sufficient character flavor that the reader finds the story palatable, both from some plot and a telescopic view of the medical world.

The book uses a log entry type approach, with daily to weekly situations being sandwiched in 4-5 page dialogues. Some material is the thinking of Doctor Grimson, an erstwhile family practitioner in todays genre, but with general surgeon credentials. How much biographical detail of Doctor Andrew Mason is inserted in the novel's character is part of the intended search.

Essentially the gamut of clinical practice with respect to the types of patients, the medical problems and emphatically doctor-patient interactions, is covered. A few clinicians would be the focus of such patient contact. The drama, the excitement and a thin slice of the depressions of medicine are rendered visible for the reader—like a weekly television series.

There are few errors, amateurish neglect of medical proprieties in the text, but they reflect only the proofreaders oversights, rather than inate ineptitude.

Somehow the book read easily despite its courses of 67 entrees. It is a respectable addition to the stable of "doctor world books." Our patients could consume this readable material, leaving them with a taste of our world and a respect for our daily log.

Blue Cross
Blue Shield
Delta Dental
of Kentucky



Eat. Drink. And be wary.

We're not going to suggest that people stop drinking. But let's face it. Drinking too much, like eating too much, is bad for your health. What's more, it can lead to an alcoholic dependency. And that's bad for you, your family, and everybody around.

Here are some tips for sensible drinking. Eat something first to slow alcoholic absorption. Dilute high-proof drinks with water or fruit juice to slow the rush to the brain. Sip your drink; don't gulp.

Remember, moderation in food and drink will help you lead a longer, healthier life. Staying healthy is the best kind of health care—and the least expensive. You can help by taking care of yourself.

At Blue Cross and Blue Shield and Delta Dental of Kentucky, we're concerned about rising health care costs. That's why we're working with consumers, dentists, physicians and hospitals to find ways to hold costs down.

Write us for information on enrolling in quality health care prepayment plans. Blue Cross and Blue Shield and Delta Dental of Kentucky, 9901 Linn Station Road, Louisville, KY 40223.

We want you to stay healthy.



®Reg. Mark Blue Cross Assn. • ®Reg. Mark Blue Shield Assn. • ™Delta Dental Plans Association

Report on August Meeting of Board of Trustees

The fifth meeting of the Board of Trustees was held in Louisville on August 6-7, 1980. One of the main purposes of this meeting was to review the reports of the committees and the resolutions to be submitted to the House of Delegates.

President Robert Howell presented a detailed report on his recent activities and those of the Association. A portion of his report related to peer review and a special ad hoc committee was formed to address the issues of peer review and to establish guidelines to assist the Association in its peer review activities, recognizing that local, regional, and state claims and utilization review committees, grievance committees, the Judicial Council and the Licensure Board all had a role to play, and that more specific guidelines for the overall conduct of business were desirable.

President-Elect Frank Pitzer then outlined plans for a KMA Leadership Conference to be held during his tenure of office in connection with the April, 1981, Board of Trustees' meeting. These plans were adopted.

Other reports included those of the Headquarters Office by the Secretary-Treasurer, and a full report on the AMA Convention was given by the Senior Delegate to the AMA, at which time tribute was paid by the Board members to Doctor Hoyt Gardner of Louisville, the outgoing president of the American Medical Association.

Kentucky's new Commissioner for Health Services, David T. Allen, M.D., was in attendance and discussed programs by his Department and the Department for Human Resources to include an interim report on discussions to convert Medicaid reimbursement into a single payment area for Kentucky.

A report on the Board of Medical Licensure was made by Doctor Frank Gaines, and Doctor Gabe Payne presented his final report to the Board as president of the Kentucky Peer Review Organization.

Additionally, a complete update was heard regarding the progress of the Kentucky Medical Insurance Company. KMIC's executive vice president, Riley Lassiter, also reported that KMIC had repaid $7,000 of the $17,500 loaned to the Company by KMA, and that the KMA Insurance Agency had repaid $21,000 of the $52,500 loaned to the Agency.

A presentation of bound *KMA Journals* was made by President Howell to immediate past president Carl Cooper, and to *Journal* Editor, A. Evan Overstreet, M.D.

A number of actions and recommendations from the Executive Committee were presented to the Board for final disposition. These related to plans of committees, government programs, and nominations for state government councils. The Board also approved the nomination of Doctor Glenn Bryant for submission to the House of Delegates for re-election to the Judicial Council.

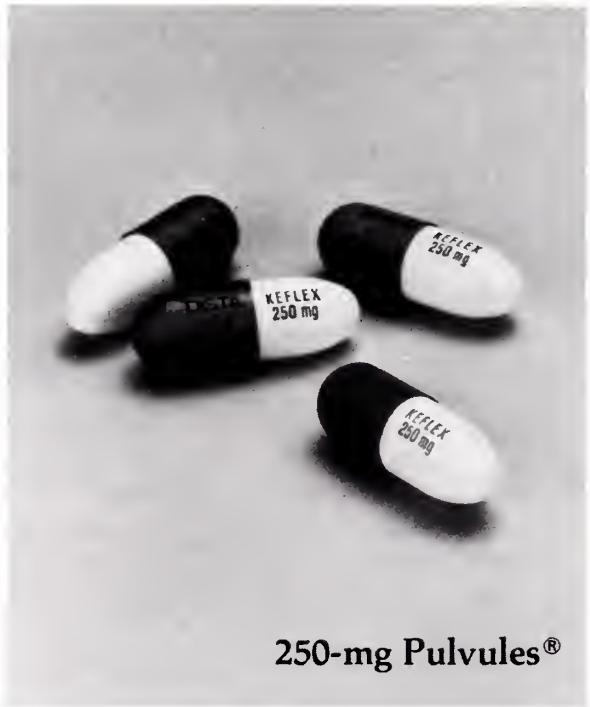
Following a discussion of the KMA Annual Meeting plans, the Board then reviewed some 30 committee reports to be submitted to the House of Delegates. No recommendations for changes were made in the committee reports.

Announcements were made that the KMIC Board of Directors and the KMA Insurance Agency Board of Directors would meet on Thursday, September 25, and the next meeting of the KMA Board of Trustees was set for Sunday, September 21.

How's Your Cost Consciousness?

OCTOBER—Solidify in your own conscience your position regarding the process of death and dying in your patients. Communicate this position effectively to families, when appropriate, so that untold thousands of dollars will not be spent unnecessarily in a process of prolongation of death.

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®
cephalexin

Additional information available
to the profession on request.

DISTA
000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

JCAH Appoints Committee to Improve Communications and Operations

On August 9, 1980, the Board of Commissioners of the Joint Commission on Accreditation of Hospitals (JCAH) created an ad hoc committee to direct efforts at improving JCAH's communication with its various publics and strengthening its accreditation process. This action was taken in response to issues recently raised by concerned health care professionals during the national convention of the American Medical Association and the American Hospital Association.

Major issues raised by JCAH's corporate members and their constituents concern: the time taken by JCAH to respond to inquiries from individuals and facilities and the quality of these responses; problems with the development; language and interpretation; implementatin and cost-benefits of JCAH's standards; the objectivity and flexibility of JCAH's surveyors; the content and processing of survey reports and consideration of extending the duration of accreditation.

These issues will be studied by the new ad hoc committee, which will develop a plan of action to deal with these specific problems relating to JCAH's communications and operations.

★

Specialized Service

IN

PROFESSIONAL LIABILITY INSURANCE

is a high mark of distinction

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greene, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Charles E. Faree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524



Headquarters Activity

SEPTEMBER

9	*Journal* Editors, Louisville
22-25	KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville
23	Maternal Mortality Study Committee, Ramada Inn/Bluegrass Convention Center, Louisville
25	Board of Medical Licensure, Louisville

OCTOBER

1-3	Officers Staff Conference, Louisville
4	Physician Recruitment Fair, Lexington
9	Paramedic Advisory Committee, Louisville
14	*Journal* Editors, Louisville
15	Judicial Council, Louisville
16	Physicians' Health, Louisville
16	Ad Hoc Committee on Public Relations and Education, Louisville
23	Claims and Utilization Review Committee, Louisville
30	Executive Committee and Scientific Program Committee, Louisville

It's smarter to
LEASE
cars, trucks and equipment
NO CASH
NEEDED
Let us tell you why and how.
General
LEASING
121 Bauer Ave., Louisville 40207
(502) 896-0383



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® ℞

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a women of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate 75 mg ethoheptazine citrate and 250 mg aspirin

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® ℂ℣

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosege**)
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine
MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiretory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea cardiac arrest, and death have occurred
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist, the patient may require careful titration with an enticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and halt-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

Copyright © 1980, Wyeth Laboratories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa 19101

JCAH Revises CPR Requirement for Medical Staff

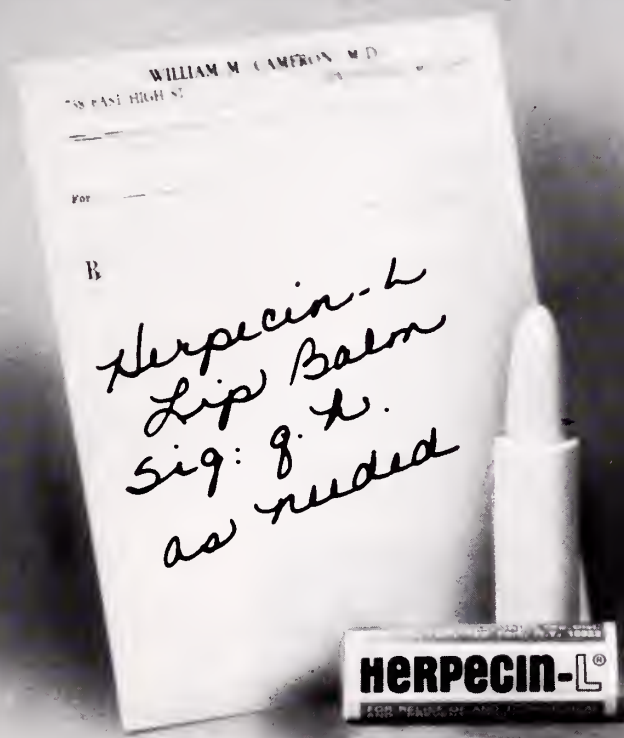
The Joint Commission on Accreditation of Hospital's (JCAH's) Board of Commissioners has voted to revise a previous requirement mandating cardiopulmonary resuscitation (CPR) training for all members of the hospital medical staff.

The revised JCAH requirement specifies: "Staff members should be encouraged to participate in pertinent self-assessment programs and in basic cardiopulmonary resuscitation training."

Because of concerns expressed by practicing physicians, JCAH's Standards and Survey Procedures (SSP) Committee reviewed JCAH's CPR requirement for physicians and recommended a change to JCAH's Board. "This action does not minimize the importance of CPR training. It does reflect our belief that it is inappropriate for JCAH to mandate that physicians be trained in a specific skill. JCAH is continuing a long-standing policy of reviewing and considering recommendations from the health care field. It's crucial that JCAH maintain this flexibility and responsiveness."

Joint Commission standards still specify that members of nursing staffs document participation at least annually in CPR training. The method and extent of training is left to the discretion of each facility.

Dx: recurrent herpes labialis



OTC.
See PDR for
Product Information.

For samples, write:
Campbell Laboratories Inc.
P.O. Box 812-M, FDR Sta.
New York, NY 10150

In Kentucky, "Herpecin-L" Lip Balm is available at all *Begley* and *Taylor Drug Stores* and other select pharmacies.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR SALE

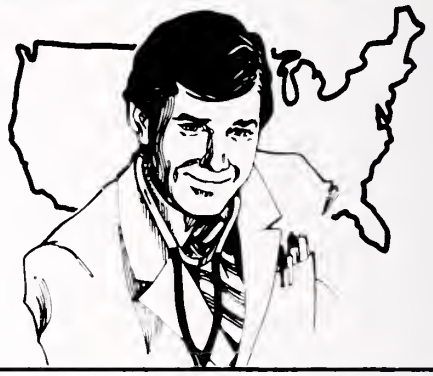
OFFICE EQUIPMENT, including X-ray. Retiring from an excellent practice. (606) 233-7382. Evenings 252-6476.

RITTER 75 EXAM TABLE. Six years old, brushed stainless stirrups, knee crutches included; excellent condition for proctology, GYN and urology exams, etc. Doctor Enright, 451-0707, Louisville.

POSITION WANTED

LOCUM TENENS work wanted. Family and General Practice, open availability. T. C. Kolff, M.D. (801) 566-1666.

HUMANA TAKES YOU WHERE THE OPPORTUNITY IS.



One Of Our 92 Hospitals Is Right For You

Choosing the right community to begin practice in is an important decision. And only Humana offers you such a wealth of choices.

Since we own and manage over 90 hospitals nationwide and know where the community patient needs are greatest, we can help you select the right place to fit your personal and professional needs.

These are the factors you need to consider:

COMMUNITY NEED

- Number of physicians in the area; their specialties and their ages
- Economic structure and stability of the community

LOCATION DESIRABILITY FROM YOUR FAMILY'S POINT OF VIEW

- Are the housing, educational, religious, recreational, shopping and social opportunities going to make your family happy?
- Are there other professional people in the area?

PROFESSIONAL DESIRABILITY

- Office facilities • Professional growth opportunities
- Hospital and medical facilities • Economic considerations
- Support services • Supplemental income opportunities

After you decide on the opportunity that suits you best, Humana will assist you in establishing a thriving practice whether it be in solo, group, association or partnership. Often, financial assistance is made available.

Humana is interested in your success, year-round. Why? Because our success depends on your success.

To explore some of these vital opportunities further, send your curriculum vitae to the following address. Also, be sure to request our current PRIVATE PRACTICE OPPORTUNITIES NEWSLETTER and our FREE book on "THE BUSINESS SIDE OF MEDICAL PRACTICE." Or call:

Practice your Specialty in your state in one of Humana's available positions.

Collect: **502-561-2296**
Toll-Free: **800-626-1590**

John Hollander
Professional Relations Manager

Humana
The Hospital Company

One Riverfront Plaza
Louisville, Kentucky 40201



April 1-2, 1981

Practice what we teach.

Today there are over 31 million men, women and children suffering from the many forms of arthritis and related rheumatic diseases. And there just aren't enough trained rheumatologists to help them.

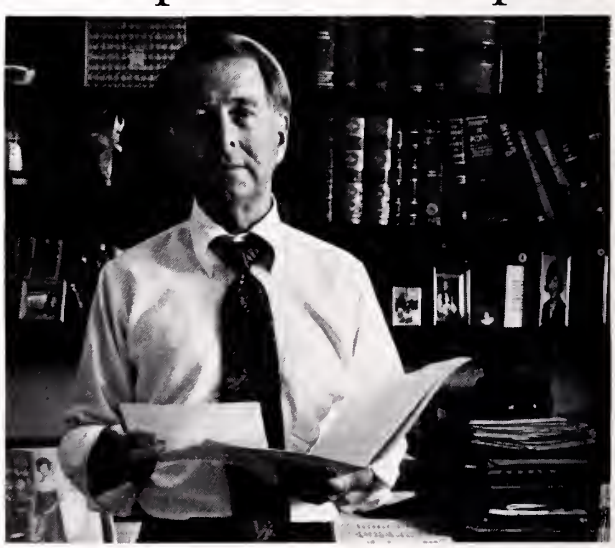
That's why arthritis sufferers need your help.

They must depend heavily on the family practitioner for better diagnosis, more effective patient treatment.

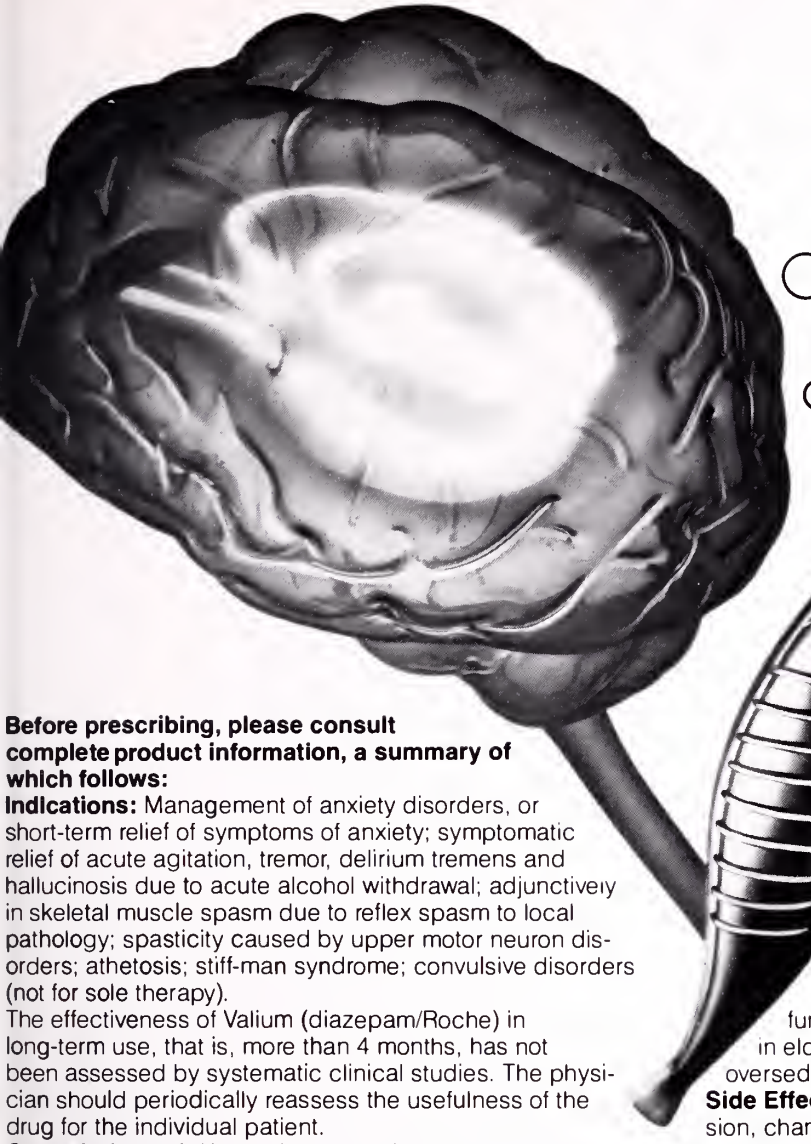
Contact your local Arthritis Foundation chapter for the latest information on arthritis. This includes continuing educational seminars by leading rheumatologists, scientific meetings, "outreach" programs—as well as the "Bulletin on the Rheumatic Diseases," "Arthritis and Rheumatism Journal," "Primer on the Rheumatic Diseases," audio cassettes and other professional materials. Free disease handbooks and medication pamphlets are also available to patients.

Please. Let us help your practice with what we teach.

The Arthritis Foundation helps doctors help.



ARTHRITIS FOUNDATION.



Only Valium® (diazepam/Roche) is indicated in anxiety disorders and as an adjunct in the relief of skeletal muscle spasm

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

ROCHE®

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Only Valium® (diazepam/Roche)
has these two distinct effects

mind & muscle



19 South 22nd St.
Philadelphia, PA 19103

2-mg, 5-mg, 10-mg
scored tablets

Valium®(IV)
diazepam/Roche

Please see summary of product information on preceding page.

Indicated in anxiety disorders and as an adjunct in the relief of skeletal muscle spasm.

ROCHE®

Crohn's Disease—Selected Aspects
Hospice Care for the Terminally Ill
Antimicrobial Therapy, Case #21:
Fever and Bone Pain

November 1980
Volume 78
Number 11

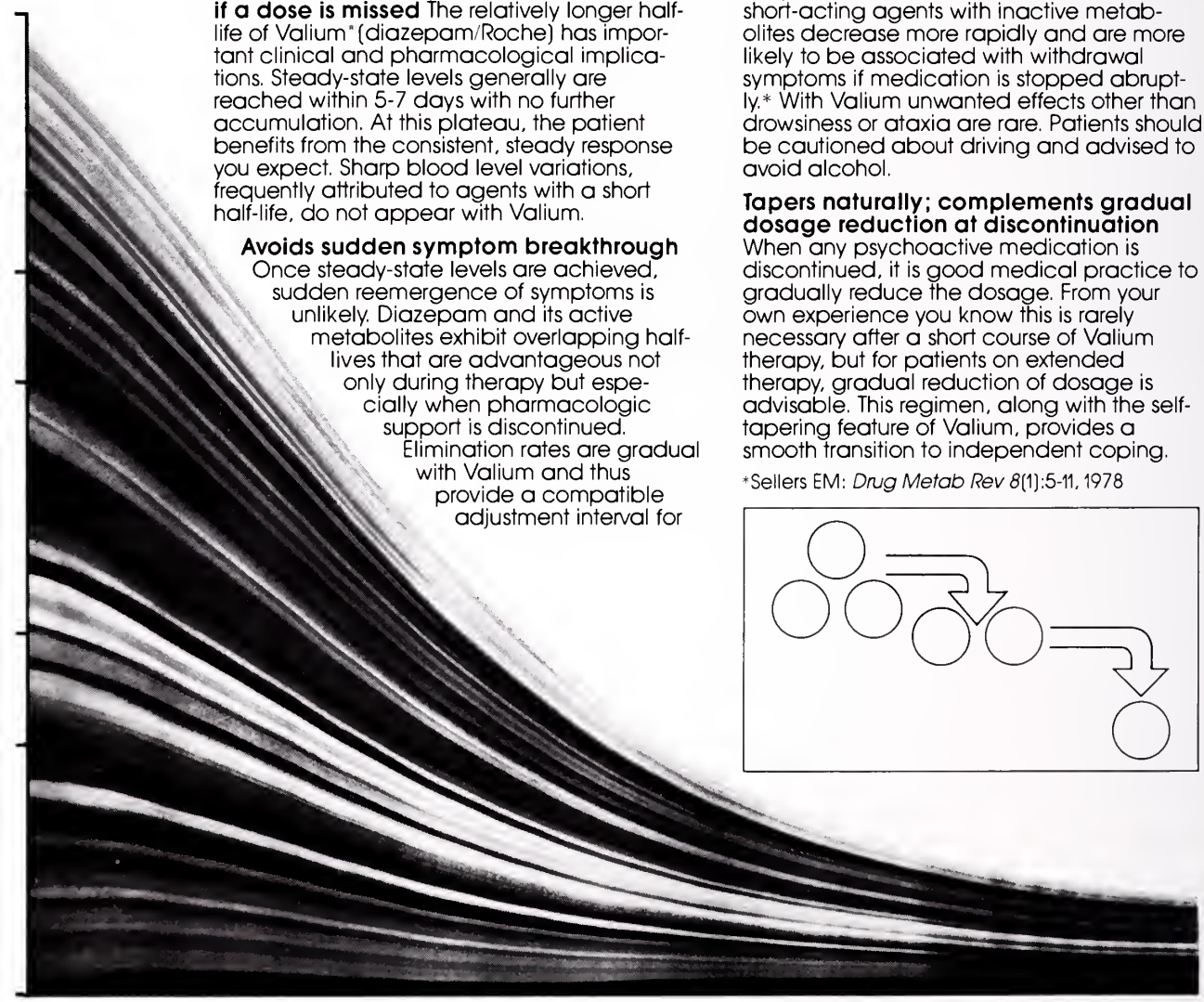
The Journal Of The Kentucky Medical Association

Philadelphia, PA 19103

COLLEGE OF PHYSICIANS
OF PHILADELPHIA
DEC 3 1980

half-life

Just one built-in advantage



Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

in the management of symptoms of anxiety

Valium®(IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

ROCHE®

Valium®
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Pediatric Update

The Department of Pediatrics, Long Island Jewish-Hillside Medical Center presents **Pediatric Update**—1981—The 11th Annual Pediatric Postgraduate Course, Marbella, Spain. February 28 - March 8, 1981 (8 days 7 nights). $185 registration fee; $315 MAP. 20 Hours Category 1 LCCME, AMA, AAFP. For information: Continuing Education Coordinator, Long Island Jewish Hillside Medical Center, New Hyde Park, N.Y. 11042 (212) 470-2114.

Apartment Investment

Community consisting of 52 two-bedroom apartments for sale, solid brick construction, located close to schools, major shopping, and major employers, fully leased, residents pay all utilities, $32,284.00 annual cash flow, has $499,000 assumable first mortgage at 8½% interest, selling for $795,000, $296,000 in equity can be paid over three tax years and payments can be structured for maximum tax advantage. For information contact:

Jack R. Medford, President
Medford Property Company, Inc.
10101 Linn Station Rd. #750
Louisville, KY 42223
(502) 425-8580

It's smarter to
LEASE
cars, trucks and equipment
NO CASH NEEDED
Let us tell you why and how.
General LEASING
121 Bauer Ave., Louisville 40207
(502) 896-0383

Postgraduate Opportunities

NOVEMBER

1-2 KAFP Fall Seminar, Hyatt Regency, Louisville

2-21 Images of Old Age, Smithsonian Institute Exhibit, Health Sciences Center, Louisville**

5 Health and Medical Care for Older People, "Ethical Aspects and Problems," Health Sciences Center, Louisville**

6 Strokes: An Approach to the Syndrome, Health Sciences Center, Louisville**

12 Eros and Old Age: Dirty Old Men and Women in History and Literature, Health Sciences Center, Louisville**

13 Diabetes in the Elderly, Health Sciences Center, Louisville**

18 Cancer Symposium, Highlands Baptist, Louisville

19 Creativity in Aging, Health Sciences Center, Louisville**

20 Consequences of Stress, Health Sciences Center, Louisville**

21 Organic Brain Syndrome—Differential Diagnosis, Health Sciences Center, Louisville**

DECEMBER

5-6 Nephrology and Urology Seminar, Hyatt Regency, Louisville**

10-12 Neurology for the Non-Neurologist, Sheraton Plaza Hotel, Chicago, Illinois

FEBRUARY 1981

5-7 Fiberoptic Bronchoscopy: A Workshop, Hyatt Regency Hotel, Lexington

15-20 12th Family Medicine Review—Session I, Hyatt Regency Hotel, Lexington

MARCH

6-8 Advanced Cardiac Life Support, Provider/Instructor Course, Health Sciences Center, Louisville**

9-11 Nutrition in Pregnancy, Health Sciences Center, Louisville**

27-28 Nutrition and Cancer Update, Health Sciences Center, Louisville**

30-31 Medical Aspects of Sports Symposium, Hyatt Regency Hotel, Lexington

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*

* *Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161*



Volume 78 • November 1980

The Journal Of The Kentucky Medical Association

USPS 280-700

Issued Monthly Under the Direction of the Board of Trustees

• **EDITOR**
A. Evan Overstreet, M.D.

• **ASSISTANT EDITORS**
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• **EXECUTIVE EDITOR**
Robert G. Cox

• **ASSOCIATE EXECUTIVE EDITOR**
Joseph A. Witherington, Jr.

• **MANAGING EDITOR**
Donna M. Young

• **REGIONAL EDITORS**
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

SCIENTIFIC ARTICLES

Crohn's Disease—Selected Aspects
Richard A. Wright, M.D. 651
Hospice Care for the Terminally Ill
Ann Blues, ED.D. and John Cronin, M.D. 658
Clinical Approach to the Choice of Antimicrobial Therapy, Case #21, Fever and Bone Pain
James C. Andrews, M.D., Julio C. Melo, M.D. and Martin J. Raff, M.D. 662
Sick Sinus Syndrome (Grand Rounds)
Christopher J. Havelda, M.D. 669

EDITORIAL

American Made 679

ASSOCIATIONAL NEWS

Highlights of the 1980 KMA Annual Meeting 688
Roll Call for House of Delegates 693

REGULAR FEATURES

Postgraduate Page 642
President's Page 649
Manuscript Information 661
CME 685
Cost Consciousness 695
Headquarters Activity 695
Letters to the Editor 699
Book Reviews 700

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscriptions $15
(Members $7.50)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

BOARD OF TRUSTEES—1980-1981

Officers

President ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1981

President-Elect ..... BALLARD W. CASSADY
P. O. Box 2469, Pikeville 41501—606/437-6698 1981

Immediate Past President ..... ROBERT S. HOWELL
Jewish Hospital, 217 East Chestnut Street, Louisville 40202—502/587-4460 ... 1981

Vice President ..... CHARLES B. SPALDING
201 South Fifth Street, Bardstown 40004—502/348-5968 1981

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, 3950 Kresge Way,
Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 1983

Vice Speaker, House of Delegates ... PETER C. CAMPBELL, JR.
Suite 400-224 East Broadway, Louisville 40202—502/583-9749 1983

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P. O. Box 406, Berea 40403—606/986-8452 1981

Vice Chairman ..... EARL P. OLIVER
217 West Main Street, Scottsville 42164—502/237-3144 1981

Delegates to the AMA

DAVID B. STEVENS, Shriners Hospital, 1900 Richmond Road, Lexington 40502—606/266-2101 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1982
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1982

Trustees

1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1983
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1983
4th ..... T. ROBERT TAYLOR, M.D., Twin Rivers Farm, Rt. 1, Boston 40107—502/769-5551 1983
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41015—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... DANNY M. CLARK, 401 Bogle Street, Somerset 42501—606/679-4396 1983
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... CHARLES G. NICHOLS, Professional Building 200, Pikeville 41501—606/432-0191 1983
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

NOVEMBER BUYERS GUIDE FOR JOURNAL OF KMA

Apartment Investment 641
Blue Cross & Blue Shield & Delta Dental 678
Boots Pharmaceuticals 645, 646, 647, 648
Burroughs Wellcome Company 686, 698
Buschmeyer's 695
Classified Column 686
General Leasing Corporation 641
Insurance Corporation of America 667
Kentucky Medical Insurance Company 680
A.P. Lee Agency 650
Eli Lilly & Company 668
Long Island Jewish Medical Center 641
Medical Protective Company 629
Roche Laboratories 640, 641, 681, 696, 703, 704
Upjohn Company 682, 683, 684
Wyeth Laboratories 686, 687, 701, 702


COUGH
COUGH
COUGH

For Sneezing and Nasal Congestion



RU-TUSS® TABLETS

Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

- Vasoconstrictor, antihistaminic actions
- Rapid and prolonged relief of nasal and sinus congestion
- Convenient b.i.d. dosage

Boots Pharmaceuticals
Pioneers in Med

For Coughing With Nasal and Bronchial Congestion



RU-TUSS® EXPECTORANT

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate (WARNING: MAY BE HABIT FORMING)	65.8 mg
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

- Vasoconstrictor, antihistaminic, expectorant actions with codeine
- Rapid relief of upper respiratory congestion and cough
- Good tasting

eport, Louisiana 71106.
e Family

SNEEZE

RU-TUSS® TABLETS

DESCRIPTION

Each prolonged action tablet contains

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0 19 mg
Atropine Sulfate	0 04 mg
Scopolamine Hydrobromide	0 01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

COUGH

RU-TUSS® EXPECTORAN

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	6
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	
Phenylpropanolamine Hydrochloride	
Pheniramine Maleate	
Pyrilamine Maleate	
Ammonium Chloride	2
Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestar expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic re upper respiratory congestion associated with pharyngitis, tracheitis, bronchiti allergic rhinitis. Also, for the temporary relief of symptoms associated with hay allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of a hypertensive or antidepressant drug containing a monoamine oxidase inhit contraindicated

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial c and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the p should be warned of the potential that this drug may be habit forming Ru-Tuss torant may cause drowsiness Patients should be warned of the possible additive caused by taking antihistamines with alcohol, hypnotics, sedatives and tranqu

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor v or operating dangerous machinery (See Warnings). Caution should be taken w tients having hypertension, diabetes, hyperthyroidism and cardiovascular dise Caution should also be used in patients with pulmonary, hepatic or renal insuffi

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, gid dryness of mucous membranes, tightness of the chest, thickening of bronchial tions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hyp sion, faintness, dizziness, tinnitus, headache, incoordination, visual disturb mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, co tion, epigastric distress, hyperirritability, nervousness and insomnia Overdos cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to e 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as direc a physician

HOW SUPPLIED

Pint bottles (16 fl oz)	NDC 0524-1

Federal law prohibits dispensing without prescription

DISTRIBUTED BY:
Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

MANUFACTURED BY:
Vitarine Company, Inc.
Springfield Gardens, New York 11413

Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

Pioneers in Medicine For the Family

PRESIDENT'S PAGE



ONCE again the Association is confronted with the continuing problems generated by the Medicaid program. A great deal of time, energy, effort and frustration was expended by our membership in addressing the Medicaid issues at our September Annual Meeting. The House of Delegates did not adjourn, but recessed to allow the KMA officers, Board and staff to collect additional data, facts and reactions of the membership prior to addressing this specific issue (Medicaid) at a reconvened meeting before April 16, 1981.

Complaints of inadequate reimbursement, restrictive and inappropriate regulations, claims processing and a continuing lack of meaningful physician input into the medical aspects of the Medicaid program were items which resulted in the KMA Board's resolution and additional resolutions of the delegates mandating the special session. The final straw was the "freeze" placed on the updating of physician reimbursement levels.

KMA physicians have been committed to work with the program since its beginning, because of their concern on behalf of the medically indigent population of our state. Approximately 70% of Kentucky physicians currently participate in the program. However, the future level of participation will be determined by the attitudes of those directing the program. While we as physicians are morally, ethically and socially committed to the care of all the people of Kentucky, we may need to seriously consider other alternative mechanisms of addressing our commitment. From the beginning, the KMA's position on reimbursement has been the UCR concept or a percentage of the UCR concept in establishing physician reimbursement levels. Our position has continued to be that all physicians be treated equally regardless of geographic location of practice. We have stressed that there should not be levels of reimbursement, but reimbursement under the UCR concept. Our suggestions and recommendations have been ignored repeatedly.

The time for a firm, positive, direct stand has arrived. I sincerely hope that each physician will assess his position and ideas in regard to this matter and relay his thoughts and considerations to his KMA delegate and/or board representative so that the issue can be fairly and completely addressed at our special session. A failure of our membership to become involved in the decision making process will only foster the frustrations which have been long standing.

Frank R. Pitzer, M.D.
KMA President

WE LOVE OUR HALF OF THE APPLE!

Since this office administers the endorsed disability program for the Kentucky Medical, Dental and Bar Associations; the Fayette County and Jefferson County Medical Societies; the Louisville Bar and Kentucky Society of CPAs, we have been envied by some agents. What they don't realize is that since 1939 we have been **specializing in the sales and servicing of disability income programs** only.

While we have always worked with agents who specialize in other fields, half an apple is enough for us.

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

The Journal Of The Kentucky Medical Association
November 1980 Volume 78 Number 11

Crohn's Disease—Selected Aspects

RICHARD A. WRIGHT, M.D.

Crohn's disease is an uncommon disorder of the gastrointestinal tract of unknown etiology. The incidence of this entity appears to be increased in the Louisville area. A review of recent developments in the etiology, diagnosis, and medical therapy is presented and critiqued.

CROHN'S disease is a puzzling pathological, and difficult clinical entity. The original description of the disease was made by the man whose name is associated with it: Burrill B. Crohn.[1] Crohn's description, like that of most of the old masters, is succinct, and has stood the test of time. The following is the description given by Doctor Crohn in 1932.

"We propose to describe, in its pathologic and clinical details, a disease of the terminal ileum, affecting mainly young adults, characterized by a sub-acute or chronic necrotizing and cicatrizing inflammation. The ulceration of the mucosa is accompanied by a disproportionate connective tissue reaction of the remaining walls of the involved intestine, a process which frequently leads to stenosis of the lumen of the intestine, associated with the formation of multiple fistulas."[1]

Crohn was actually not the first to describe the disease, but he was the first to report a series of patients with excellent surgical and pathological correlation and follow-up. Single case reports date back to the early 19th century.

The disease was originally labeled terminal ileitis, since all of Crohn's 14 patients had the disease confined to that anatomical area. However, as it became evident that the disease could involve any part of the gastrointestinal tract including the mouth and anus, it was called regional enteritis. Other synonyms include granulomatous bowel disease or granulomatous colitis when the colon alone is involved. The preferred nomenclature presently is Crohn's disease or Crohn's colitis if the colon alone is involved, since granulomas are no longer required to make the diagnosis.

From the Division of Digestive Diseases and Nutrition, Department of Medicine, University of Louisville School of Medicine and Veterans Administration Hospital, Louisville, Ky.

CROHN'S DISEASE—Wright

Crohn's disease is included with ulcerative colitis under the classification of inflammatory bowel disease. The distinction between the two is seen in Figure 1. Epidemiological studies show that ulcerative colitis has a 3-fold increase in prevalence and 2-fold increase in annual incidence over Crohn's disease. In the Louisville area, however, Crohn's disease is more common than ulcerative colitis by our observations. The male to female ratio is approximately equal in both disease states. There is a definite racial predominance in both diseases in the Jewish population. Blacks are affected less commonly than Caucasians and Orientals.[2]

Pathologically, Crohn's disease can usually be distinguished from ulcerative colitis. However, there is considerable overlap between the findings, both macroscopically and microscopically, in the two diseases. Contrary to the 100% incidence of granulomas in Crohn's disease and 0% in ulcerative colitis reported in some series, most authorities do not feel that granulomas are required to make a diagnosis of Crohn's disease. Furthermore, a large series from the Armed Forces Institute of Pathology noted an 8% incidence of granulomas in patients with ulcerative colitis. One may be dealing with a spectrum of one disease, with ulcerative colitis at one end, and Crohn's disease at the other, with an overlap syndrome in between.

FIGURE I

INFLAMMATORY BOWEL DISEASE

EPIDEMIOLOGY	CROHN'S DISEASE	ULCERATIVE COLITIS
Prevalence	15/100,000	40/100,000
Incidence	2/100,000 per year	4/100,000 per year
Female/Male	1:1	1.3/1.0
Racial	Jewish, Caucasian	Jewish, Caucasian
PATHOLOGY		
Macroscopic	Transmural thickening with skip lesions	Mucosal involvement primarily
	Linear ulcers	Thickening of bowel wall chronically
	Fissures	
	Lumenal narrowing	
Microscopic	Granulomas (not required)	May have granulomas
	Submucosal fibrosis	Crypt abscesses
	Crypt abscesses	

Adapted from Cook M and Dixon M. GUT 14:255, 1973

Clinical Manifestations

Several anatomical patterns may be encountered in Crohn's disease. Most commonly, both ileum and right colon are involved (41%), with ileum (28%) or colon only (27%), having equal frequency next.[3] Solitary anorectal disease is uncommon (4%).[3] Ages of presentation and duration of symptoms at diagnosis are approximately equal for ileal, colonic, or ileocolonic involvement. Anorectal disease alone presents later (39 years of age mean) with a shorter duration of symptoms (two years).[3] Of all presenting complaints, abdominal pain and small bowl obstruction are the most common.[3] Fistula formation and malnutrition are also frequent. Rectal bleeding, which is usually in small amounts, is seen predominantly with colonic involvement.[3] Acute massive lower gastrointestinal bleeding from Crohn's disease is distinctly rare, although a few cases are reported in the literature.[4]

Extraintestinal manifestations of Crohn's disease are less frequent than seen in ulcerative colitis in general.[5] Polyarticular disease and erythema nodosum are seen more often in patients with Crohn's disease. Sacroileitis is more common in

FIGURE 2

INFLAMMATORY BOWEL DISEASE

	CROHN'S COLITIS	CROHN'S ILEOCOLITIS
CLINICAL PRESENTATION[1]		
Rectal Bleeding	46%	22%
Rectal Fistula	19%	21%
Abdominal Pain	55%	65%
Malnutrition	22%	12%
Intestinal Obstruction	27%	44%
EXTRAINTESTINAL MANIFESTATIONS[2]		
Arthritis or Arthralgia	39%	26%
Erythema Nodosum	15%	8%
Pyoderma Gangrenosum	1.6%	1.3%
Malabsorption	0%	10%
Gallstones	5%	10%
Renal Calculi	5%	9%
Amyloidosis	2%	1%
Liver Disease (Laboratory test abnormalities)	6%	4%

[1]Modified from: Farmer R, Hawk W, and Turnbull R. Gastroenterology *66*:627, 1975.

[2]Modified from: Greenstein A, Janowitz M, and Sachar D. Medicine *55*:401, 1976.

patients with pancolitis with HLA-B27 antigen positivity.[5] Amyloidosis occurs in a small percentage of patients with long term disease.[5] Hepatic disease is said by Joseph Kirshner to be present in all patients with inflammatory bowel disease, but is clinically significant in very few.[6] Pericholangitis and sclerosing cholangitis with portal fibrosis are the most common biopsy findings.[6] Gallstones are much more frequent when the ileum is involved since malabsorption of bile salts occurs. With a decreased bile salt pool, cholesterol saturability decreases, leading to cholelithiasis.[5,6]

Etiology

The cause of Crohn's disease is unknown. In fact, it is not even certain whether any single agent or factor is responsible for the disease. Recent advances have been focused on either transmissible agents or host factors.

Since Crohn's disease is an inflammatory disorder, an infectious agent has long been sought as a potential cause. [7-10] If one takes homogenized intestine or lymph nodes from a patient with Crohn's disease and injects them into a rabbit ileum or mouse foot pad, a granulomatous response occurs frequently, but not always.[10] This reaction can be transmitted sequentially at least twice from one rabbit ileum to another.[9,10] Autoclaving, radiation, and cold storage abolishes this response.[8-10] Mitchell's hypothesis of an infectious agent appeared to have a sound basis until it was noted that a granulomatous reaction may occur when rabbit ilea are injected with normal intestinal homogenates.[11]

Parent was able to culture a cell wall defective pseudomonas in all eight of his patients with Crohn's disease, but not in control patients, or in patients having ulcerative colitis.[12] He has identified the organism as Pseudomonas maltophilia and has found antibody to the same bacterium in more than half of all patients with Crohn's disease.[13] The antibody was not found in a large number of patients without Crohn's disease, but was present in a minority (10%) of patients with ulcerative colitis and other gastrointestinal disorders.[13] There has never been a case of person to person transmission of Crohn's disease reported. Studies that do suggest a transmissible agent have small numbers of patients and controls. Thus, there is currently no clearcut evidence for a transmissible agent in Crohn's disease, although ongoing studies show promise.

The presence of granulomas, occurrence of systemic manifestations such as arthritis and erythema nodosum, as well as the favorable therapeutic response to corticosteroids have all led to the speculation that altered immunity might be playing a role in the pathogenesis of Crohn's disease.[3] Early investigators noted high titers of bacterial antigens in the sera of patients having Crohn's disease.[3] Further study showed that all patients with a lack of mucosal integrity (celiac sprue, ulcerative colitis, etc.) would have the same antibodies.[14] Thus, circulating dietary and bacterial antigens would appear to be the **result** of the disease rather than its **cause.**

The next area to be investigated was cellular immunity, a likely culprit because of granulomas that are characteristic in other states of depressed delayed hypersensitivity such as sarcoid. *In Vivo* testing of immune functions in patients with Crohn's disease have shown normal skin sensitization to DCNB and normal skin reactivity to mumps, PPD and SKSD skin tests. Immunoglobulins are quantitatively normal.[15,16] *In Vitro* studies have shown normal lymphocyte responsiveness to mitogens.[16] However, lymphocytotoxic antibodies have been found in the majority of patients with Crohn's disease.[17,18] Also, lymphocytes cultured from patients with Crohn's disease will kill colonic cells on contact.[17,18] Some researchers have taken this evidence and constructed a working hypothesis.[19] They speculate that bacterial antigens penetrate the bowel wall shortly after birth and sensitize lymphocytes. At some time later in life, transient damage to the intestinal mucosa allows bacteria to enter the bowel wall and set up an inflammatory reaction.[19] This hypothesis presumes an altered immune system since this schema does not occur in normals.[19]

Other investigators have postulated abnormal intestinal lymphocytes.[16,20,21] However, detailed analyses of isolated human intestinal lymphoid cells have shown an increase in lymphocytes (es-

pecially B lymphocytes responsible for IgG production). This finding is expected, however, in any inflammatory state.[16,20,21]

Genetic predisposition has long been investigated in Crohn's disease. As mentioned earlier, the disease is much more common in Jews. Furthermore, 3 to 11% of patients with Crohn's disease have a relative with either Crohn's disease or ulcerative colitis.[3] When HLA antigens were studied, there was no significant difference between antigen frequency and typing in patients with Crohn's disease as compared with non-diseased controls.[22] It was noted, however, that HLA-B27 was higher in patients with concommitant ankylosing spondylitis or sacroileitis.[22] Also, HLA-B27 antigen positivity correlated with pancolonic Crohn's disease.[22]

Diagnosis

Falchuk and co-workers reported in the New England Journal of Medicine in 1975 that serum lysozyme was an accurate diagnostic tool in differentiating ulcerative colitis from Crohn's disease.[23] Lysozyme or muramidase is derived from inflammatory cell granules. However, more recent studies by Nugent and others have shown no correlation between the lysozyme level and disease activity, extent of disease, or Crohn's disease itself.[24] One Scandinavian study, in fact, showed the opposite results compared with Falchuk's original report.[25] Thus, serum lysozyme is unreliable and unavailable, and currently has no place in the diagnosis of Crohn's disease.[24,25]

Radiographic diagnosis is the most accurate means of determining small bowel involvement. Early changes include thickening and distortion of the valvulae conniventes. Fissures and ulcerations led to a cobblestone appearance. The classical string sign results from edema, scarring, or both, with compromise of the intestinal lumen. The lumenal compromise may respond to medical therapy in the case of an acute attack. If the disease is chronic with extensive scarring, it will not. Fistulas and localized perforations are common, and usually occur near the terminal ileum. Barium studies are contraindicated in acute disease since they may exaccerbate the disease or cause barium peritonitis if perforation has occurred. There is no correlation between barium enema and toxic megacolon in Crohn's colitis. Flares that occur with such studies are most likely secondary to vigorous preparation and enemas rather than to the barium study itself. It should be noted that since Crohn's disease is a chronic recurrent process, radiation doses to the colon and small bowel are high over a long period. Thus, barium studies should only be undertaken if there is a question in diagnosis, or surgical therapy is contemplated.

Colonoscopy is of value in differentiating the disease from ulcerative colitis, and documenting the extent of the disease. Since colon cancer is more common in patients with long-term disease, colonoscopy is also indicated in the investigation of lesions that are questionable on barium studies. Colonscopy should not be done when colitis is active since perforation either from the endoscope or from insufflated air may occur.

Sigmoidoscopy with rectal biopsy may be of help in distinguishing Crohn's disease from ulcerative colitis or amebic colitis. However, the recent National Cooperative Crohn's Disease Study revealed this tool to be less helpful than previously believed.[26]

It is of paramount importance to rule out infectious colitides which may mimic regional enteritis. Amebic colitis can be largely excluded by obtaining a fresh stool (obtained at the time of sigmoidoscopy) for trophozoites, and obtaining a serum IHA titer for Entameba histolytica. In endemic areas, some clinicians advocate a trial on metronidazole while waiting for serological titers, prior to starting corticosteroids for presumed Crohn's colitis. Stool cultures for Salmonella, Shigella, Yersinia enterocolitica and Campylobacter should be done. Tuberculosis can present in an identical fashion with ileocecal involvement and intestinal obstruction. This is exceedingly rare in the United States, however. The tuberculin skin test may be negative if the patient is malnourished or on corticosteroids. The absence of evidence for past or present TB on chest x-ray, and negative morning gastric aspiration for acid fast bacilli makes this diagnosis very unlikely in this country.

In uncertain cases, other clinical signs are important in differentiating Crohn's disease from other pathological states. Ischemic bowel disease is suspected when the onset of rectal bleeding and abdominal pain is abrupt in a patient with suspected vascular or thromboembolic disease. Thumb printing on x-ray (representing submucosal edema or hemorrhage) is the hallmark of ischemic disease, and is uncommon in Crohn's disease. Diverticulitis may also present with a stricture and fistula formation, but is more common in the left colon, and occurs in the presence of severe diverticular disease. On barium studies, the mucosa will appear intact in diverticulitis, while it is usually ulcerated in Crohn's disease. Other entities including appendicitis, lymphoma, fungal infections, and non-granulomatous ulcerative jejunoileitis should be considered. A laparotomy is often required to make a diagnosis.

Medical Therapy

Crohn's disease is uncommon, with fewer than 5,000 new cases diagnosed per year in this country. The etiology is unknown, as stated earlier. Furthermore, the disease is characterized by spontaneous exaccerbations and remissions over a long period of time. All of these factors have complicated the formulation and evaluation of effective treatment. There were nearly as many therapeutic regimens as there were gastroenterologists some 15 to 20 years ago. Consequently, about seven years ago a large cooperative study was initiated to assess medical therapy of the disease. Fifteen study centers were established throughout the country.[27] A Crohn's disease activity index which included 18 variables ranging from the number of stools per day, general well-being, and body weight, to hematocrit and the use of antidiarrheal agents was formulated. The index was calculated using numerical grading for each variable. A score higher than 150 indicated active disease, higher than 450 severe active disease.[27] Criteria for inclusion included a number of diagnostic modalities, most of which have been discussed previously. Exclusion factors included age, white blood cell and platelet counts, diabetes requiring medication, refractory hypertension, pregnancy, and others.[27]

Patients were randomized in a double blind fashion to receive different drugs. The study was divided into two parts: Part 1—the treatment of active symptomatic disease, and Part 2—the maintenance of remission.[28] The response was defined as a Crohn's disease activity index less than 150 and a comparison was made with placebo medication. In Part I, prednisone or sulfasalazine were both more effective than placebo, while azathioprine was not.[28] (Figure 3) This was independent of whether patients were on steroids prior to entering the study.[28] Patients having only colonic involvement had a different response pattern. Only sulfasalazine was more effective than placebo in these patients.[28] However, patients having Crohn's involvement elsewhere, whether the colon was involved or not, showed a clearcut response to prednisone in preference to sulfasalazine. The mode of action of sulfasalazine is thought to be the metabolism of the drug to 5-aminosalicylate and sulfapyridine by colonic bacteria.

After patients who presented with an acute flare had gone into remission, they were randomized to receive placebo, prednisone, sulfasalazine, or azathioprine to determine whether any of these drugs were able to maintain the remission state. Patients were followed through one and two year intervals. No drug was better than placebo in maintaining a remission. Patients who entered the study in remission were also randomized to receive one of the three drugs or placebo. None were better than the placebo in maintaining remission.

About five years ago, there were anecdotal reports detailing the benefit of ACTH over corticosteroids in the treatment of Crohn's disease. Since then, Kaplan and others have shown in a mixture of patients with Crohn's disease and ulcerative colitis, that ACTH was no better than corticosteroids, and indeed did have some drawbacks.[29]

Since Crohn's disease has been postulated to be linked to a faulty immune response, immunosuppressive drugs have been used in treatment. Azathioprine, as mentioned earlier, has no effect in inducing or maintaining remission.[28] Furthermore, there is a high toxicity associated

with this drug. Thus, there is no place for azathioprine in the treatment of Crohn's disease currently.[28]

In 1977, Present and others from New York City reported on the use of 6-mercaptopurine versus placebo in a double blinded crossover trial encompassing one year.[30] Their results did show a significant benefit to 6-mercaptopurine when compared with patients receiving placebo.[30] Parent now has a large series of patients with a 60 to 70% response rate to 6-mercaptopurine.[31] There is noted a toxicity of less than 10% utilizing this drug.[31] He has also observed that the drug does not have a favorable effect until a four to six month latency period is achieved.[31] Thus, 6-mercaptopurine may hold promise, but further studies are needed before it can be recommended as standard therapy for patients with Crohn's disease.

Total parenteral nutrition has been used for the past five to 10 years in the treatment of patients with inflammatory bowel disease. Boyce and Fischer, in 1973 and 1974, reported dramatic remissions in patients treated with this modality.[32,33] Its two primary advantages are that it allows total bowel rest and improved nitrogen balance. Successful closure of enterocutaneous fistulas have been reported by many groups. In adolescents with severe growth retardation secondary to Crohn's disease, it has induced increased growth, and instituted the onset of delayed puberty.[34,35] Occasionally, patients with extensive resections and short bowel syndrome may require home TPN permanently.

It is important to emphasize that total parenteral nutrition does not cure the disease, but does allow tissue repair, positive nitrogen balance, and more intensive medical therapy. Whether surgery can be avoided by total parenteral nutrition is still under study. A recent prospective study has shown a 65% response rate to TPN and intensive medical therapy in patients previously refractory to medical therapy while on oral feeding.[36] Surgery was avoided in the majority of cases given a five week trial on TPN.[36] Our experience at University Hospital and the Veterans Administration Hospital suggest that total parenteral nutrition is indeed beneficial in most patients admitted with acute disease exaccerbation.

Broad spectrum antibiotics have been used for years in the treatment (both acute and chronic) of patients with Crohn's disease. There have been no double blind, randomized trials, however. An abstract, in 1977, from Moss and Carbone, indicated a subjective response in over 90% of patients treated with broad spectrum antibiotics for an acute flare of Crohn's disease. Radiographic improvement was noted in over 60% of cases.[37] However, as stated previously, there has been no good study to document the fact that this type of regimen is beneficial.[37]

It is clear that medical therapy of Crohn's disease is far from established. The National Cooperative Crohn's Disease Study has shed light on most commonly used modalities of treatment. Other therapeutic interventions need to be better defined. Certainly, current therapy consists at best of a shot in the dark since it is still unclear what factor or factors is responsible for the causation of this disease state. With increased numbers of researchers investigating potential etiologies for the disease, it is likely that this question will be answered in the next decade. With the body of

FIGURE 3

NATIONAL COOPERATIVE CROHN'S DISEASE STUDY

SUMMARY

1. In active Crohn's disease, prednisone or sulfasalazine were better than placebo, while azathioprine was not.
2. Prednisone plus sulfasalazine used in combination were worse than prednisone alone in the treatment of active Crohn's disease.
3. Crohn's disease confined to the colon responds best to sulfasalazine.
4. No drug tested (prednisone, sulfasalazine, azathioprine) was better than placebo in maintaining a newly achieved remission.
5. No drug was better than placebo in preventing recurrence of disease after surgery.

From Gastroenterology 77:825-938, 1979.

knowledge currently available, it is likely that the disease is caused by an altered immune system (possibly partially inherited) in combination with an infectious agent which is innocuous to most individuals without a genetic diathesis.

References 1. Crohn BB, Ginzburg L and Oppenheimer GD: Regional ileitis—a pathologic and clinical entity. *JAMA 99:*1323, 1932. 2. Donaldson RM: Crohn's disease of the small bowel. *Gastrointestinal Diseases,* M Sleisenger, J Fordtran, WB Saunders, Philadelphia, 1978, pp 1058-1059. 3. Farmer R, Hawk W, and Turnbull B: Clinical patterns in Crohn's disease: A statistical study of 615 cases. *Gastroenterology 68:*627-635, 1975. 4. Homan WP, et al: Acute massive hemorrhage from intestinal Crohn's disease. Report of seven cases and review of the literature. *Arch Surg 111:*901-905, 1976. 5. Greenstein A, Janowitz H, and Sachar D: Extraintestinal manifestations of inflammatory bowel disease. *Medicine 55:*401-411, 1976. 6. Kirsner JB: The local and systemic complications of inflammatory bowel disease. *JAMA 242:*1177-1183, 1979. 7. Cave DR, Mitchell DN and Brooke BN: Experimental animal studies of the etiology and pathogenesis of Crohn's disease. *Gastroenterology 69:*618, 1975. 8. Mitchell DN, Rees RJW and Goswami KKA: Transmissible agents from human sarcoid and Crohn's disease tissues. *Lancet 2:*761, 1976. 9. Farmer GW, Vincent MM, Fuccillo DA, et al: Viral investigations in ulcerative colitis and regional enteritis. *Gastroenterology* 65:8, 1973. 10. Taub RN, Sachar D, Janowitz H, et al: Induction of granulomas in mice by inoculation of tissue homogenates from patients with inflammatory bowel disease and sarcoidosis. *Annals of NY Acad Sci 278:*560, 1976. 11. Mitchell DN and Reese RJW: Further observations on the transmissibility of Crohn's disease. *Annals of NY Acad Sci 278:*546, 1976. 12. Parent K and Mitchell PD: Experimental evidence establishing the presence of a wall defective pseudomonas—lils bacterial variant in Crohn's disease. *Gastroenterology 72:*A87-111, 1977 (Abstract). 13. Parent K: *Personal Communication,* April 1980. 14. Falchuk KR and Isselbacher KJ: Circulating antibodies to bovine albumin in ulcerative colitis and Crohn's disease. *Gastroenterology 70:*5-9, 1976. 15. MacPherson BR, Albertini RJ and Beeker WL: Immunological studies in patients with Crohn's disease. *Gut 17:*100, 1976. 16. Asquith P, Kraft SC and Rothberg RM: Lymphocyte responses to non-specific mitogens in inflammatory bowel disease. *Gastroenterology 65:*1, 1973. 17. Korsmeyer S, Strickland RG, Wilson ID, et al: Serum lymphocytotoxic and lymphocytophilic antibody activity in inflammatory bowel disease. *Gastroenterology 67:*578, 1974. 18. Korsmeyer SJ, Williams RC, Wilson ID and Strickland RG: Lymphocytotoxic and RNA antibodies in inflammatory bowel disease: a comparative study in patients and their families. *Ann Ny Acad Sci 278:*574, 1976. 19. Shorter R, Hulzenga A and Spencer R: A working hypothesis for the etiology and pathogenesis of non-specific inflammatory bowel disease. *Am J Dig Dis 17:*1024-1027, 1972. 20. Stobo JD, Tomasi TB, Huizenga, et al: *In vitro* studies of inflammatory bowel disease. *Gastroenterology 70:*171, 1976. 21. Lyanga JJ, Davis P and Thomson A: *In vitro* testing of immunoresponsiveness in patients with inflammatory bowel disese. *Clin Exp Immunol 37:*120, 1979. 22. Mallas G, MacKintosh P, Asquith P and Cooke WT: Histocompatibility antigens in inflammatory bowel disease. *Gut 17:*906, 1976. 23. Falchuk KR, Perrotto JL and Isselbacher KJ: Serum lysozyme in Crohn's disease and ulcerative colitis. *N Engl J Med 292:*395, 1975. 24. Nugent FW, Mallari RM, Georgi H, et al: Serum lysozyme in inflammatory bowel disease. *Gastroenterology 70:*1014, 1976. 25. Hylander E, Hansen NE, Karle H, et al: Serum lysozyme in Crohn's disease and ulcerative colitis. *Scand J Gastroenterology 11:*213, 1976. 26. Hill RB, Kent TH and Hansen RN: Clinical usefulness of rectal biopsy in Crohn's disease. *Gastroenterology 77:*938-944, 1979. 27. Winship DH, Summers RW, et al: Natural cooperative Crohn's disease study: Study design and conduct of the study. *Gastroenterology 77:*829-842, 1979. 28. Summers R, Switz D, et al: National cooperative Crohn's disease study: Results of drug treatment. *Gastroenterology 77:*847-869, 1979. 29. Kaplan HP, Portnoy B, Binder HJ, et al: A controlled evaluation of intravenous adrenocorticotropic hormone and hydrocortisone in the treatment of acute colitis. *Gastroenterology 69:*91, 1975. 30. Present DH, Wisch N. Glass J, et al: Efficacy of immunosuppressive therapy in Crohn's disease: A randomized long-term double blind study. *Gastroenterology 72:*A91-114, 1977 (Abstract). 31. Present DH: *Personal Communication,* April 1980. 32. Anderson DL and Boyce HW: Use of parenteral nutrition in treatment of advanced regional enteritis. *Am J Dig Dis* 18:633, 1973. 33. Vogel CM, Corwin TR and Baue AE: Intravenous hyperalimentation in the treatment of inflammatory diseases of the bowel. *Arch Surg 108:*460, 1974. 34. Whittington PF, Barnes HV and Bayless TM: Medical management of Crohn's disease in adolescence. *Gastroenterology 72:*1338, 1977. 35. Farmer RG, Michener WM: Prognosis of Crohn's disease with onset in childhood or adolescence. *Dig Dis Sci 24:*752, 1979. 36. Elson OE, Layden TJ, et al: An evaluation of total parenteral nutrition in the management of inflammatory bowel disease. *Dig Dis Sci 25:*42-48, 1980. 37. Moss AA, Carbone JV and Kressel HY: Successful treatment of Crohn's disease with broad-spectrum antibiotics: Intial and long-term results. *Gastroenterology 72:*A83-1106, 1977 (Abstract).

Acknowledgements

Thanks goes to Mrs. Virginia Black for clerical expertise in the preparation of this manuscript.

Hospice Care for the Terminally Ill

ANN BLUES, ED. D. AND JOHN CRONIN, M.D.

Hospice care, a medically directed program of palliation for the terminally ill, is now available throughout Kentucky. Based on a survey of services provided across the state, a clear description of the Kentucky program is presented. Data from the Community Hospice of Lexington revealed a two to one proportion of women being cared for and a mean age for all patients of 63.2 years. 97% have been cancer patients and over 73% have had diagnosed as the primary site, gastrointestinal tract, lung, breast and uterus-cervix. Over 80% of the hospice patients have died at home compared to the Kentucky average for cancer deaths of 15%. The ability to remain at home is seen as an indication of the skill of team management of the complex problems of terminal symptoms and pain. In order that maximal palliative care can be given while restoring continuity and stability to the dying process, the medical care for patients in Kentucky remains the responsibility of the primary care physician.

A "Hospice" in 1500 was an inn built along the trail, frequently at those places of greatest vulnerability. The word seemed appropriate to Doctor Cicely Saunders who, as founder of St. Christopher's Hospice in London, England applied it to a medically directed program of care for the terminally ill. Modeled in concept after the English program, the hospice movement in Kentucky has been a dynamic one. In April 1980, 10 on-going hospice groups and 11 hospices in the planning stage held an annual Kentucky Association of Hospices meeting with 140 in attendance. (See map insert)

These groups have developed a support structure for terminally ill patients and their families which can be utilized by their doctors in implementing the medical care plan. Hospice, though physician directed, is an interdisciplinary effort combining skills and resources in a problem-oriented team approach. The hospice working teams include physicians, registered and licensed practical nurses, social workers, clergy and a pharmacologist, psychologist and dentist, individually selected to meet patient needs. A core of specially screened and trained volunteers provides additional homemaking and housekeeping aid, transportation, socialization and support services.

There is general understanding that hospice care refers to the management of patients for whom the elimination or control of disease is no longer a possibility.[1] Patients do not become locked into either a curative or a palliative care system. As aggressive curative therapy becomes irrelevant, control of symptoms may become more appropriate. Such control of symptoms may, however, revive the prospect of further treatment.[2] The real core then of hospice care is diligence to the pathological, psychological and spiritual processes underlying the problems of those with terminal illness.

From the Ephraim McDowell Community Cancer Network, Inc., Community Hospice of Lexington and the Lexington Clinic, Lexington, KY.

HOSPICE CARE—Blues and Cronin

In the Community Hospice of Lexington, from which the following data has been collected, referral must be by a physician who with the hospice intake committee determines the appropriateness of the referral. Stated criteria for admission into the Lexington program are: The patient must (1) have weeks or months to live, (2) live within the determined geographic area, (3) have someone in the home who can be trained in hospice care and take responsibility for the patient, (4) have a physician who will work with the program. Each case is considered individually by the intake committee and occasional exceptions are made to criteria 2 and 3 if an alternate structure is possible.

The Community Hospice of Lexington, with the support of the Ephraim McDowell Community Cancer Network, Inc., community agencies and individuals, has cared for over 109 families since its first patient in 1977. As staff and volunteers have expanded, so has the capacity to serve. At the present time a normal case load is eight to 12 families indicating the probability of caring for well over 150 families in 1980.

GROWTH OF HOSPICE IN KENTUCKY



C-COMMITTEE STAGE P-ACCEPTING PATIENTS

1. Paducah - C
2. Madisonville - P
3. Elizabethtown - C
4. Louisville - P
5. Frankfort - P
6. Lexington Community - P
7. Lexington VA - P
8. Richmond-Berea - C
9. Danville - P
10. Somerset - P
11. Hyden - P
12. Harlan - C
13. Hazard - C
14. Morehead - C
15. Bluegrass Community - P
16. Ashland - P
17. Maysville - C
18. Covington - C
19. Carrollton - C
20. Monticello - C
21. Grayson - C

Data collected on demographic characteristics of patients reveals that nearly twice as many women as men have been cared for. Explanation may lie in the interest of several breast cancer specialists in the Lexington program or, as has been stated by some families, the additional need for family support when it is the woman who is ill. The mean age for all patients during 1979 was 63.2 years, mode 61 years with 10 patients 49 or younger. The youngest patient in this group was a 32-year-old woman with a primary breast cancer.

As can be seen in Table 1, during the past year cancers of the gastrointestinal tract, lung, breast and uterus-cervix account for 73.5% of all primary sites in patients. While a large majority of hospice patients do have cancer, the disease most often requiring the type of care hospice provides, one patient with renal and one with heart disease have also been admitted.

Of the patients who have died in the hospice program 83% have chosen and been able to do so at home. (Table 2) This compares to an average of 15% (figure acquired from State Data Agency) of all cancer deaths in the state of Kentucky which occurred at home during 1978.[3] It is often assumed that only those patients without complications are able to die at home. The hospice team, however, along with well trained family members capably managed complex problems of terminal disease such as pain, nutrition, elimination and mobility. As can be seen in Table 3, one of the most dominant problems in terminal disease continues to be pain.

In order that maximal palliative care can be given while restoring continuity and stability to the dying process, the medical care for patients in Kentucky hospices remains the responsibility of the primary care physician. The medical director is available for consultation. To date, physicians listing their specialties as Internal Medicine, Hematology, Surgery, Family Practice, OB/GYN, Oncology, Urology, Orthopedics or Neurosurgery have referred patients to the Community Hospice of Lexington.

Although there is widespread support for the movement, those involved in its progress are aware of the many challenges which it may face in the future. Doctor John F. Potter of Georgetown

University Medical Center in his recent article (NEJM) delineates potential areas of abuse and confusion.[4]

The first challenge is central to the definition of "terminal." The hospice concept explicitly states that no one should be entered into a hospice program until all reasonable efforts have been made to achieve cure or meaningfully prolong life. It would be inappropriate to admit into the hospice system the patient with inoperable small cell carcinoma of the lung who could attain, through combined radiation therapy and chemotherapy, long tumor free intervals during which the quality of life might be quite excellent.

When then is it appropriate to stop curative treatment? This may be resolved when the patient being treated with chemotherapy fails to respond or recurs after a series of initial responses and it is judged that all currently available protocols or therapies can alter the course of the disease. Patients, however, wishing to remain in experimental programs should be so continued. This medical decision must be made by a competant interdisciplinary admissions committee aware of recent advances in cancer care. When all aspects have been weighed another challenge emerges . . . the informed choice by the patient of palliative care.

The resources of the patient to cope with any progressive and terminal disease are difficult to assess. Few patients can bear to be deprived of all hope at any time no matter how obvious the inevitable outcome may be. But there are many truths and many ways of telling them. Through listening to the patient, one may answer his most immediate doubt. Truth may be offered in the simplest kindest way possible—always with the openness that allows the patient to disregard it if it is still too hard to face. It comes as a surprise to those new at working with dying patients that they often fear many things more than death *ie* prolonged suffering, rejection, isolation, loss of love or control and the terrible fear of becoming someone distasteful to others. Genuine hope for control can be offered that will allay these fears.

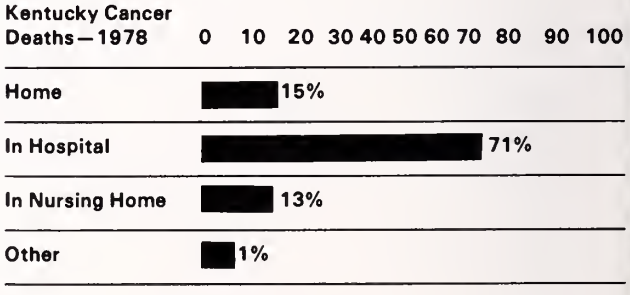
A third challenge is in the area of evaluation. Proper management is difficult to monitor in a home care program, yet an internal review mechanism and conscientious attention to an accurate medical record system can substantially eliminate mismanagement. While every safeguard should be taken to protect the dignity and privacy of the patient, research into the quality of pain control or psychological support must be on-going to improve management.

The challenges to be faced indicate the determination of hospice programs to remain concerned with not only the relief of symptoms pre-

TABLE I

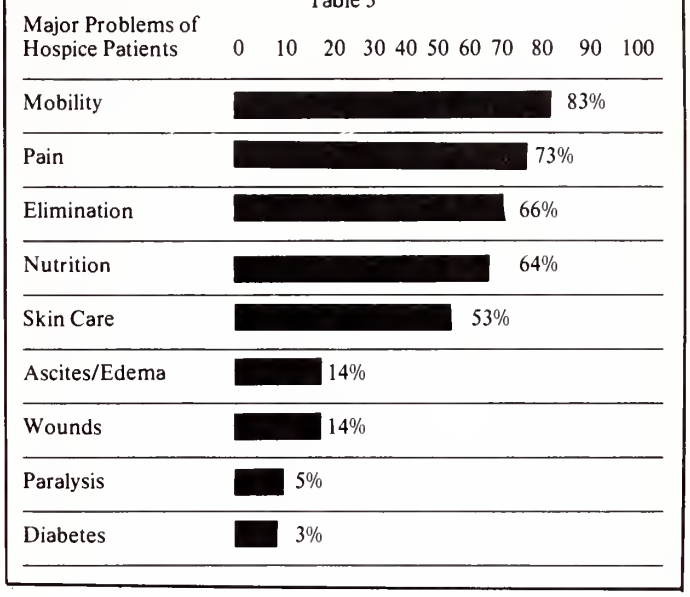
PRIMARY SITE	% OF PATIENTS	CUMULATIVE
Gastrointestinal	28%	28%
Lung	18%	46%
Breast	15.5%	61.5%
Uterus-Cervix	12%	73.5%
Head & Neck	8%	81.3%
Urological	6.2%	87.5%
Lymphoma	2.5%	90.0%
Liver	1%	91%
Prostate	1%	92%
Undet. Primary Site	5%	97%
Non-Cancerous	3%	100%

TABLE 2



viously judged intractable, but to a detailed consideration of the whole person and his/her quality of life.

Table 3



References 1. Saunders CM *The Management of Terminal Disease.* E. Arnold Publishers Ltd., London, 1978, 2-3. 2. Saunders, CM, 1. 3. Office of Health Data, Department of Human Resources, Frankfort, KY 40621. 4. Potter, John F. A Challenge for the Hospice Movement. *N. Eng. J. Med.*, Vol. 302, 1, 1980, 55.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Clinical Approach to the Choice of Antimicrobial Therapy, Case #21: Fever and Bone Pain

JAMES C. ANDREWS, M.D., JULIO C. MELO, M.D. AND MARTIN J. RAFF, M.D.

This is the twenty-second in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the diagnosis of infectious diseases and the use of antibiotics. A case history is presented, followed by multiple choice questions relevant to management of the patient described. The authors' choices of answers and explanations of how they assessed these cases and chose therapeutic regimens are provided.

A Four-year-old black male is carried into an emergency room. His mother claims that for the past three days the child has been complaining of progressively increasing pain in the right lower extremity. During this time the child had been limping, but this morning he will not walk at all. The mother feels that her child is currently unable to move the leg and fears that it is probably paralyzed. Further questioning reveals that four days ago the child had tripped while running up a flight of stairs, sustaining mild blunt trauma to his right leg. Following the accident there had been an ecchymotic area a few centimeters in diameter on the anterior tibial surface of his right leg, but otherwise there is no significant injury apparent.

From the Section of Infectious Diseases, Department of Medicine, the University of Louisville School of Medicine, Louisville, KY and the Department of Surgery, Indiana University Medical Center, Indianapolis, IN

Examination reveals a normally developed well nourished but apprehensive young boy. Temperature is 102°F, pulse 110/min., respirations 20/min. and blood pressure 106/58 mm Hg. Physical examination is normal except for the distal right lower extremity which is grossly edematous, erythematous, warm and exquisitely tender. Hemoglobin is 11.4 gm/dl, hematocrit 34% and WBC count 14,500/mm^3 with 80% neutrophils, 8% bands and 12% lymphocytes. Westergren erythrocyte sedimentation rate is 53 mm/hr.

Which of the following should be included in the differential diagnosis:

A. Septic arthritis
B. Osteomyelitis
C. Cellulitis
D. Rheumatic fever
E. Rheumatoid arthritis

Answer: A, B and C. All of the above choices could be included, but the most likely diagnoses are the infectious processes, *ie*; septic arthritis, osteomyelitis and cellulitis. Bone tumor, leukemia and scurvy might also be considered, but are less likely with this history, physical examination and laboratory data.

Physical examination of the involved extremity is important in narrowing the differential. In **all** the above listed diseases, there will be pain, tenderness, swelling and erythema. In patients with acute osteomyelitis, careful manipulation will often reveal an area of greatest tenderness overlying the metaphysis of the involved bone. The adjacent joint must also be carefully evaluated, as there is less edema and an appreciably greater range of motion in the joints of patients with osteomyelitis than in those with septic arthritis. Rheumatic fever and rheumatoid arthritis will also present with the tenderness being most severe

in the joint space rather than over a bony prominence. With cellulitis there is more severe erythema and soft tissue induration often with a sharp border of demarcation with diffuse and mild tenderness over the entire area involved.[1-4] It should be noted that cellulitis may also occur secondary to and overlying an area of osteomyelitis or septic arthritis, and that extension of osteomyelitis into the joint space may cause it to present as an acute septic arthritis.[4]

Understanding acute osteomyelitis requires a review of the pathophysiology and statistics of this disease. Basically, there are two forms—acute hematogenous osteomyelitis secondary to a bacteremia which usually emanates from an infected focus elsewhere in the body (*ie*, abscess, urinary tract infection, etc.); and acute exogenous osteomyelitis, due to bacterial contamination from the environment (*ie*, compound fractures, penetrating injuries and surgical procedures).

Hematogenous osteomyelitis is more complex in its pathophophysiology. It tends to be a disease of children, with males having an incidence two to three times higher than females.[3-5] The most commonly involved areas are the long bones of the extremities, with the femur, tibia and humerus accounting for between 50 to 68% of cases.[4,5] Because of the vascular flow characteristics in these bones, the childhood metaphysis is especially vulnerable to infection. Arterioles supplying the epiphyseal plate drain into a large system of sinusoidal veins in which there is a marked slowing of blood flow. Thus this region is predisposed to stasis of bacterial emboli and organisms can then become well established. Because arterioles supplying the epiphysis are end-arteries, embolization can result in complete obstruction of blood flow with subsequent micronecrosis of the bone. It has also been suggested that the vessels in this region either lack, or contain functionally inactive phagocytic lining cells, further predisposing to infection. For further details of the pathophysiology of osteomyelitis consult the classic articles by Waldvogel et al[5] and Kahn and Pritzker.[6]

The usual presenting complaints in the patient with acute hematogenous osteomyelitis are bone or joint pain and fever.[2,4,7] Careful questioning will reveal a history of recent blunt trauma to the area involved in one third to one half the cases.[3,4,7] A history of "paralysis" is most uncommon when osteomyelitis involves an extremity. Due to the pain and tenderness, there will be a great amount of guarding and muscle spasm which will prevent movement. This pseudoparalysis can easily be distinguished from true neuromuscular dysfunction by careful physical examination.

Systemic findings are often dramatic in patients with acute osteomyelitis. They may appear quite toxic, with high fever, tachycardia and tachypnea. Laboratory data usually reveals a leucocytosis of less than 15,000/mm^3 with a left shift, mild anemia, and an elevated erythrocyte sedimentation rate.[4]

Further evaluation of the patient described above should include each of the following **except:**

A. X-ray and bone scan of the involved extremity
B. Cultures of urine, nares, pharynx and blood
C. Aspiration of the bone involved via a syringe with a large bore needle
D. Lumbar puncture and culture of CSF
E. Open surgical biopsy and drainage

Answer: D and E. Surgical procedures are not necessary at this stage of the illness, nor is lumbar puncture warranted in this patient without evidence of central nervous system disease.

Although x-ray evidence of bony changes due to osteomyelitis usually does not occur before 10 to 14 days, early roentgenographic evaluation may be extremely helpful in establishing the diagnosis. Changes on x-ray initially include deep soft tissue swelling adjacent to the metaphysis followed by swelling of the muscles and obliteration of the intermuscular fat planes.[8,9] Radiological changes in bone begin with a mottled lucency of the metaphysis, and only later is there periosteal elevation and new bone formation. In vertebral osteomyelitis there is a narrowing of the disc space and bone resorption. Scintigraphic scanning with technetium (Tc 99 m) or other radioisotopes may be of value in detecting the presence of osteomyelitis even prior to the occurrence of

changes on routine x-rays.[10] Use of this procedure is encouraged where early diagnosis cannot be established utilizing other techniques.

As with any other infectious disease, cultures are warranted. Blood cultures are positive in patients with osteomyelitis approximately 50 - 60% of the time,[1,4,5] and when positive usually yield the causative agent. Since this is not invariably the case and because hematogenous osteomyelitis most commonly arises from an active focus of infection elsewhere in the body, culture of the urine, nose, pharynx and any other obvious abscesses or lesions may isolate the causative organism.[2,3,11] Lumbar puncture and culture of CSF would not be indicated unless meningismus was present or alterations of sensorium or localized neurological defects suggested CNS involvement.

If physical findings or radiographic changes can localize the region of osteomyelitis, aspiration of the area using a syringe with a large bore needle is always indicated.[28,29] Initially the needle should just penetrate the periosteum in an attempt to aspirate pus from the subperiosteal space. If no material can be retrieved by this procedure, the needle can be pushed through the cortex into the metaphysis, with aspiration from this region. Material recovered should be gram-stained and cultured aerobically and anaerobically. Cultures of bone obtained in this fashion are positive in 70-90% of cases.[5,7]

Having performed the appropriate initial evaluation of this patient, which of the following choices is the best therapeutic approach?

A. Begin the patient on an appropriate antibiotic only after culture and sensitivity reports have been returned

B. Hospitalize and begin parenteral antibiotics immediately, based upon results of gram stain of the bony aspirate

C. Prepare the patient for immediate surgical drainage and debridement

D. Immobilize and observe

E. Begin on oral antibiotics and have the patient return in two days for results of cultures

Answer: B. Hospitalize and begin parenteral antibiotics immediately, based upon results of gram stain of the bony aspirate.

Because osteomyelitis is such an acute disease resulting in rapid and extensive bony destruction it is imperative that antibiotic therapy begin **immediately.** This is especially true in the child with growing bones. Hospitalization and parenteral administration of appropriate drugs are **mandatory.** If pus is obtained on bone aspiration, gram stain of this material can be useful in determining the involved organism and thus the correct choice of antibiotic therapy. In the absence of this information, an approach to therapy based upon mathematical probabilities is necessary.

Staphylococcus aureus is the most common etiologic agent with a reported incidence ranging from 50 to 90%. Also commonly involved are Group-A beta-hemolytic streptococci (3-10%), *Streptococcus pneumoniae* (1-5%) and aerobic gram-negative bacilli (0.9%).[1,3,4,5,7]

In the patient described here, gram stain of the bone aspirate reveals many polymorphonuclear leucocytes and gram-positive cocci. Which of the following antibiotics is now most appropriate:

A. Cephalothin (Keflin®)
B. Tetracycline
C. Oxacillin (Prostaphylin®)
D. Cephalexin (Keflex®)
E. Penicillin G

Answer: C. Oxacillin (Prostaphylin®)

Staphylococcus aureus will be the most rapidly destructive organism and therapy should be directed primarily toward this agent. Because greater than 50% of stains of staphylococci produce penicillinase, a penicillinase-resistant semisynthetic penicillin derivative such as methicillin, oxacillin or nafcillin is the drug of choice with which to initiate parenteral therapy in high dosages. Penicillin G will be inadequate in over half of all patients. The semisynthetic antistaphylococcal penicillins will provide adequate coverage for the streptococci and therefore greater than 90% of the commonly involved organisms, with the exception of aerobic and some anaerobic gram-negative bacilli.[5,7,9,12-14] These

latter bacteria usually produce acute osteomyelitis under usual epidemiologic and clinical conditions (*ie*, heroin addicts,[16] children with puncture wounds of the feet,[17,18] patients with vascular insufficiency,[19] etc.) and can be suspected on this basis.

When cultures and sensitivities have returned, it may be necessary to change antibiotics. It should be noted that penicillin is a more effective drug than the semisynthetic penicillins in infections caused by penicillin-sensitive organisms, whether staphylococci or other pyogenic cocci. Therefore if the organism is sensitive to penicillin G *in vitro,* it should be substituted for the anti-staphylococcal compound being administered.

In patients with a history of hypersensitivity reactions to penicillins, secondary choices of antibiotics may include clindamycin or a cephalosporin. There have been a few cases of staphylococcal resistance to clindamycin and even when the organisms are sensitive, this drug may not be bactericidal for the organism. The mechanism of action of clindamycin is to inhibit protein synthesis, and therefore is often only bacteriostatic against the infecting organism and thus not as effective as the penicillins which are most often bactericidal.[12-15] Standard laboratory sensitivity testing may not be adequate in conditions of this nature (*ie*, osteomyelitis, endocarditis), since the procedures commonly performed do not usually indicate whether the drug is bacteriostatic or bactericidal against the organism tested, and the lab should be requested to make this differentiation. Also, since the therapy is often quite prolonged the laboratory should be asked to retain the organism for future testing should it become necessary (*eg*, the patient develops an allergic reaction and a new antibiotic must be substituted). Otherwise, clindamycin provides effective coverage against the usual organisms producing osteomyelitis[15] and penetrates bone effectively.[20] Tetracycline is a bacteriostatic compound and many gram-positive cocci, including pneumococci, may be resistant.

If the organism is resistant to clindamycin or sensitive only in a bacteriostatic fashion, a cephalosporin antibiotic may provide an adequate alternative choice. Although the incidence of cross-hypersensitivity reactions between penicillins and cephalosporins is low, there is nonetheless a potential for deleterious effects. When clinically indicated however, the cephalosporins can be **carefully substituted** for penicillins, particularly when the history of hypersensitivity is vague or the reactions have been of a delayed type. Cephalexin should not be used here as it can only be administered orally.

Antibiotic therapy should be given intravenously in high dosages for **at least** one month.[4,20] If possible, serum levels of antibiotic should be maintained at levels which will kill the organism isolated at a 1:8 dilution or greater during this time. Therapy may then be continued for an additional one to two months using oral antibiotics if deemed necessary. One of the major problems faced by the physician treating a patient with osteomyelitis is the duration of antimicrobial therapy. Systemic signs and symptoms, WBC counts, erythrocyte sedimentation rate and roentgenograms should be followed for improvement; antibiotics should not be stopped until these parameters are normal. If all organisms are not successfully eradicated this disease has the potential for reactivation at a later date, particularly when due to *Staphylococcus aureus.* Antibiotic therapy alone is capable of curing the great majority of cases of acute hematogenous osteomyelitis,[4,21-23] since higher levels of drugs are reached at the site of the infection in the presence of acute inflammation.[24-26]

Surgical intervention is indicated if systemic and local signs have not improved after 24-48 hours of medical therapy hours of if there is clear evidence of exudate accumulating beneath the periosteum.[1,2,3,11,21] The surgical procedure allows for decompression and subsequent drainage of the infected reagion. The periosteum is incised and a 1 to 2 centimeter window is placed in the metaphysis. Pus and necrotic debris is removed. The wound is then packed open.

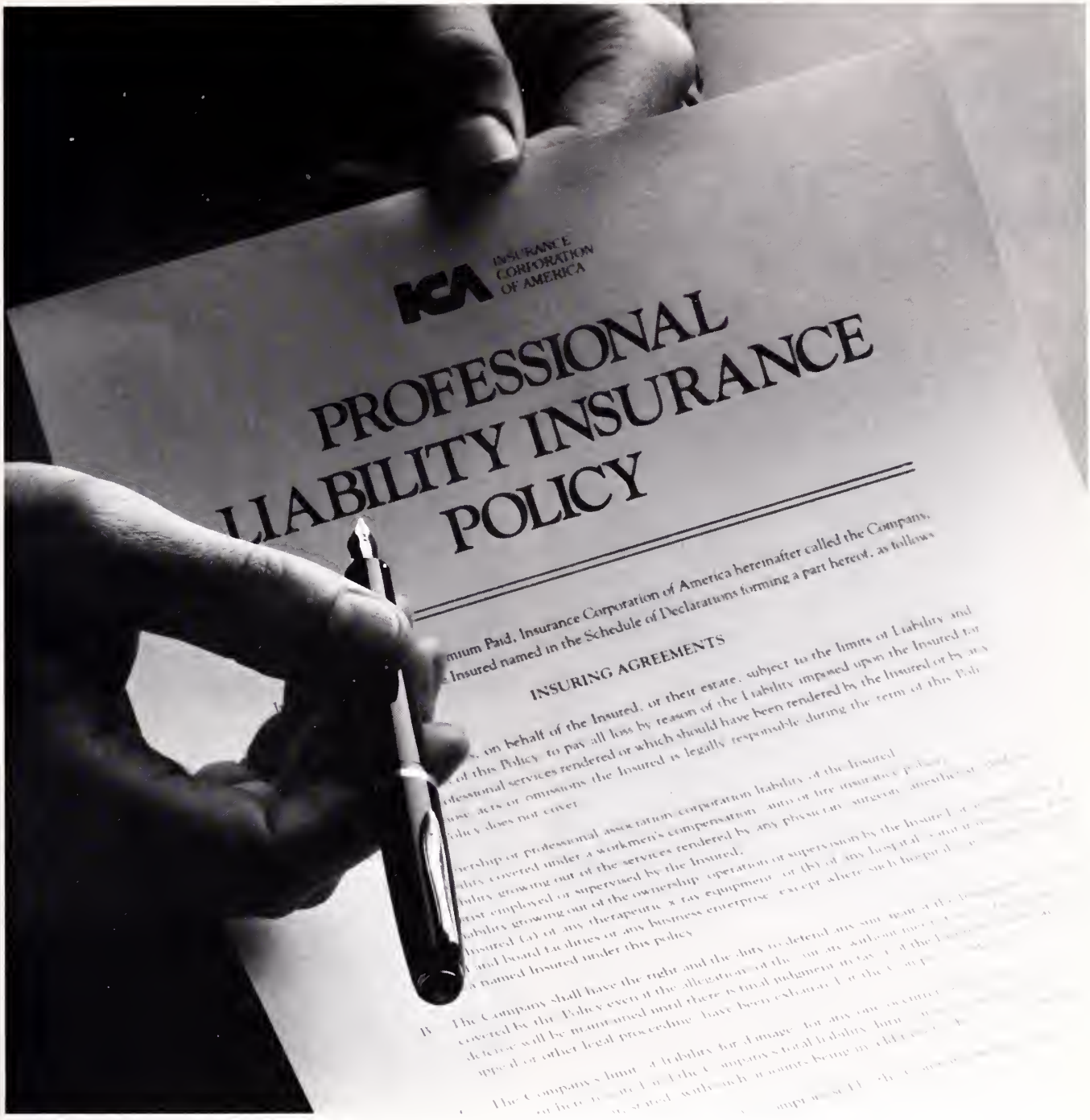
For extensive and chronic infections, there are some who feel it is useful to utilize closed suction irrigation.[21,27,28] This procedure is performed with the addition of two catheters placed into the medullary canal through the cortical window. The

other ends of the catheters are brought externally by two puncture wounds in the skin and the wound is closed primarily. An antibiotic solution is instilled through one catheter while the other catheter is attached to suction for drainage. Irrigation in this manner is usually performed for five to 10 days.[1-3] This procedure is **not** of proven efficacy and the catheters may produce problems of superinfection with resistant organisms, development of allergic reactions to topical drug administration, and others.

Special consideration needs to be given to osteomyelitis which occurs following puncture wounds and open fractures.[17,18,29] *Pseudomonas aeruginosa* and other gram-negative aerobic bacilli are common infecting organisms in these cases. After the injury, the patient often experiences a decrease in pain followed later by an increase in pain, tenderness and swelling. Fever and leucocyte count can be normal but the erythrocyte sedimentation rate is usually elevated. The best therapy for *Pseudomonas aeruginosa* is a combination of gentamicin or tobramycin and carbenicillin.[3,29]

Salmonella infection commonly occurs in the patient with sickle cell anemia. The long bones of the body are most frequently involved. In diagnosing osteomyelitis in a patient with sickle cell disease, it is important to draw blood cultures during an acute sickling crisis if possible. Antibiotic treatment should include chloramphenicol or ampicillin.[5,29]

References 1. Sabiston DC: *Davis-Christopher Textbook of Surgery: The Biological Basis of Modern Surgical Practice.* W. B. Saunders Co., 1977, 1954. 2. Griffin PP: Bone and joint infections in children. *Ped Clinics N Amer* 14:533-548. 3. Boland AL: Acute hematogenous osteomyelitis. *Orthoped Clinics N Amer* 3:225-229, 1972. 4. Dich VD, Nelson JD and Haltalin KC: Osteomyelitis in infants and children, A review of 163 cases. *Amer J Dis Child* 129:1273-1278, 1975. 5. Waldvogel FA, Medoff G and Swartz MN: Osteomyelitis: A review of clinical features, therapeutic considerations and unusual aspects. *New Engl J Med* 282:198-206, 260-266, 316-322, 1970. 6. Kahn DS and Pritzker KPH: The pathophysiology of bone infection. *Clin Orthop* 96:12, 1973. 7. Jacobs JC: Acute osteomyelitis; medical management in children. *N Y State J Med* 78:910-912, 1978. 8. Nixon GW: Acute hematogenous osteomyelitis. *Ped Ann* 5:65, 1976. 9. Capitanio MA and Kirkpatrick JA: Early roentgen observation in acute osteomyelitis. *Amer J Roentgenol* 108:488, 1970. 10. Treves S, Khettry J, Broker FH et al: Osteomyelitis: Early scintigraphic detection in children. *Pediatrics* 57:173-186, 1976. 11. Rhodes KH: Antibiotic management of acute osteomyelitis and septic arthritis in children. *Orthped Clin N Amer* 3:225-229, 1972. 12. Kucers A and Bennet NM *The Use of Antibiotics: A Comprehensive Review with Clinical Emphasis.* JB Lippincott Co, 1970, pp. 79, 470. 13. Goodman LS and Gilman A: *The Pharmacological Basis of Therapeutics.* New York, The Macmillan Co., 1975., pp. 1140, 1227, 1228. 14. Holloway WJ: The current status of osteomyelitis. Williams JD and Geddes AM *Chemotherapy* Volume 1, New York, Plenum Press, 1976, p. 59. 15. Meyer, TL., Kiejer AB and Smith WS: Antibiotic management of staphylococcal osteomyelitis. *J Bone Joint Surg* 47A:285-292, 1965. 16. Mandal AK, Kiala M, Oparah SS and Thadepalli H: Osteolytic lesion indicating *Pseudomonas* sternal osteomyelitis. *Arch Surg 111:* 776-778, 1976. 17. Brand RA and Black H: Pseudomonas osteomyelitis following puncture wounds in children. *J Bone Joint Surg* 56A:1637-1642, 1974. 18. Lang AG and Peterson HA: Osteomyelitis following puncture wounds of the foot in children. *J Trauma* 16:993-999, 1976. 19. Raff MJ and Melo JC Anaerobic osteomyelitis. *Medicine* 57:83-103, 1978. 20. Panzer JD, Brown D, Epshein W et al: Clindamycin levels in various body tissues and fluids. *J Clin Pharmacol* 12:259-261, 1972. 21. Musher DM and McKenzie SL Infections due to *Staphylococcus aureus. Medicine* 56:383-409, 1977. 22. Blockey NJ, and McAllister IA: Antibiotics in acute osteomyelitis in children. *J Bone Joint Surg* 546:299-309, 1972. 23. Lowe RW and Brooks AL: Hematogenous osteomyelitis. *South Med J* 63:1183-1189, 1970. 24. Norden CW Experimental osteomyelitis II. Therapeutic trials and measurement of antibiotic levels in bone. *J Infect Dis* 124:565-571, 1971. 25. Norden CW and Dickens DR Experimental osteomyelitis III. Treatment with cephaloridine. *J Infect Dis* 127:525-528, 1973. 26. Smilack JD, Flittie WH and Williams TW, Jr: Bone concentrations of antimicrobial agents after parenteral administration. *Antimicrob Ag Chemother* 9:169-171, 1976. 27. Hedstrom SA: General and local antibiotic treatment of chronic osteomyelitis. *Scand J Infec Dis* 1:175-180, 1969. 28. Jones RF, Barnett JA and Gregory CF: Regional perfusion with antibiotics for chronic bone infections. *Arch Surg* 106:142-144, 1973. 29. Meyers BR, Berson BL, Gilbert M and Hirschman SZ Clinical patterns of osteomyelitis due to gram-negative bacteria. *Arch Intern Med* 131:228-233, 1973.



PUT A CONTRACT OUT ON FRIVOLOUS CLAIMS.

Frivolous claims can be a nightmare. Especially if your malpractice insurance company doesn't stand by you. And unfortunately, all too many don't.

For instance, most malpractice insurance policies give you no say in whether to fight or settle a claim. And if you do have a say, you can be hit with a costly penalty for going to court. Another thing. Many companies don't pay all legal expenses. And most companies seldom use lawyers to process cases. Claims are often handled only by claims adjusters.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working for doctors. So we know the strong coverage and knowledgeable service physicians need from their liability insurance. And since we specialize in this one field, we can offer a superior policy for a realistic premium. Premiums based on actual costs in your state.

So select the policy with the protection you need. Put a contract out on frivolous claims. For more information contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas Phone 1-800-231-2615

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®
cephalexin

Additional information available
to the profession on request.

DISTA
000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Sick Sinus Syndrome

INTRODUCTION

In recent years an increasing number of clinical conditions characterized by sinus node dysfunction have become recognized. The term "sick sinus syndrome" (SSS) has been applied to disorders that are characterized by one or more of the following electrocardiographic manifestations: (1) persistent, severe and unexpected sinus bradycardia; (2) cessation of sinus rhythm (with and without escape rhythms supervening; (3) chronic atrial fibrillation with a slow ventricular response in the absence of drugs; (4) episodes of sinoatrial (SA) exit block in the absence of drugs, and (5) failure of spontaneous sinus rhythm to return following electrical cardioversion. When these various bradyarrhythmias occur in conjunction with intermittent tachyarrhythmias, a specific form of this syndrome called the "bradycardia-tachycardia syndrome" is said to occur. This review will address the anatomic, physiologic and pathologic features of the sinus node and the etiology and clinical manifestations together with diagnostic modalities and therapeutic considerations of the sick sinus syndrome.

PATIENT PRESENTATION

A 79-year-old white female presented in July 1977, to the General Medical Clinic of the University Hospital, University of Louisville, for continued medical care of long-standing, insulin dependent maturity onset of diabetes mellitus and essential hypertension. Her only symptoms at this time included occasional light-headedness and mild dyspnea on exertion. There were no other historical features of significance and, in particular, there was no family history of heart disease.

On examination, she was a well preserved, well nourished elderly lady in no acute distress. Her pulse was 90 and regular with a blood pressure of 180/90 in the right arm standing. Fundoscopic exam revealed mild arteriolar narrowing with no evidence of hemorrhages or exudates. The lung fields were clear to auscultation. The cardiovascular exam demonstrated no elevation of the jugular venous pulse and no peripheral edema. Her peripheral pulses were equal and synchronous without bruits and the apex was displaced in the fifth intercostal space just to the left of the midclavicular line but was not sustained. There were no precordial thrills or heaves and both heart sounds were well heard with physiologic splitting of the second sound. No clicks or gallops were detected, but a grade 1/6 systolic murmur was detected at the lower left sternal border with no radiation. The breath sounds were vesicular and the liver was non-palpable and non-pulsatile, while the rest of the physicial examination was unremarkable.

The laboratory investigations at this time included CBC, BUN, electrolytes, creatinine, all within normal limits, and a fasting blood sugar of 180mg%. A resting electrocardiogram demonstrated sinus rhythm and was within normal limits. A chest x-ray revealed mild cardiomegaly with dilatation of the descending aorta and calcification of the mitral valve annulus.

Therapy was initiated with Furosemide 40mg daily, for mild essential hypertension and symptomatic congestive heart failure. She returned in March 1978, not having taken any of her med-

From the Division of Cardiology, Department of Medicine, University of Louisville, School of Medicine, Louisville, Kentucky, and the Veterans Administration Medical Center, Louisville, Kentucky.

ication. Her blood pressure was 210/85 in the right arm, supine, at this visit and her diuretic was restarted. Thyroid function tests were within normal limits.

In April 1978, she noted the onset of occasional anginal chest pains that were exertionally related. She continued to note fairly frequent episodes of dizziness. Her physical examination was unchanged and the fasting blood sugar was 100mg%.

She was lost to follow-up until May, 1979, when she presented with an acute non-transmural myocardial infarction. On the day prior to her admission, while at rest, she noted the onset of central, dull, substernal chest pain radiating down the medial aspect of her left arm and into her neck, lasting for approximately 15-20 minutes, being associated with nausea. She was finally persuaded to seek attention 24 hours later where she was subsequently admitted to the Coronary Care Unit. Of significance, she admitted to two syncopal episodes since her last hospital visit. The physical examination was unchanged. Laboratory data at this time revealed a hemoglobin of 14.1gm%. Serial cardiac enzymes confirmed a recent myocardial infarction with elevation of the lactate dehydrogenase (LDH) enzyme, demonstrating a peak value of 404 IU/L on the third hospital day with a positive isoenzyme pattern. The CPK and SGOT enzymes remained within normal limits. Her chest x-ray again revealed mild cardiomegaly with no evidence of congestive heart failure. Her electrocardiogram on admission (Figure 1) demonstrated ST elevation in the inferior leads, indicating subendocardial injury. On the second hospital day, she experienced three episodes of spontaneous atrial fibrillation followed by long periods of sinus arrest (Figure 2). She became markedly dizzy during these episodes but eventually sustained atrial fibrillation with an adequate ventricular response for which she was digitalized. She converted to sinus rhythm on the next hospital day and remained asymptomatic thereafter. It was felt these arrhythmias represented part of an ongoing process to which her previous symptoms of dizziness and syncope could be attributed, and were probably not temporally related to her recent infarction. On the eighth hospital day, under local anesthesia, she underwent right ventricular implantation of a unipolar R-wave inhibited rate programmable pacemaker with a threshold of 0.7 milliamps without complications. Post op-

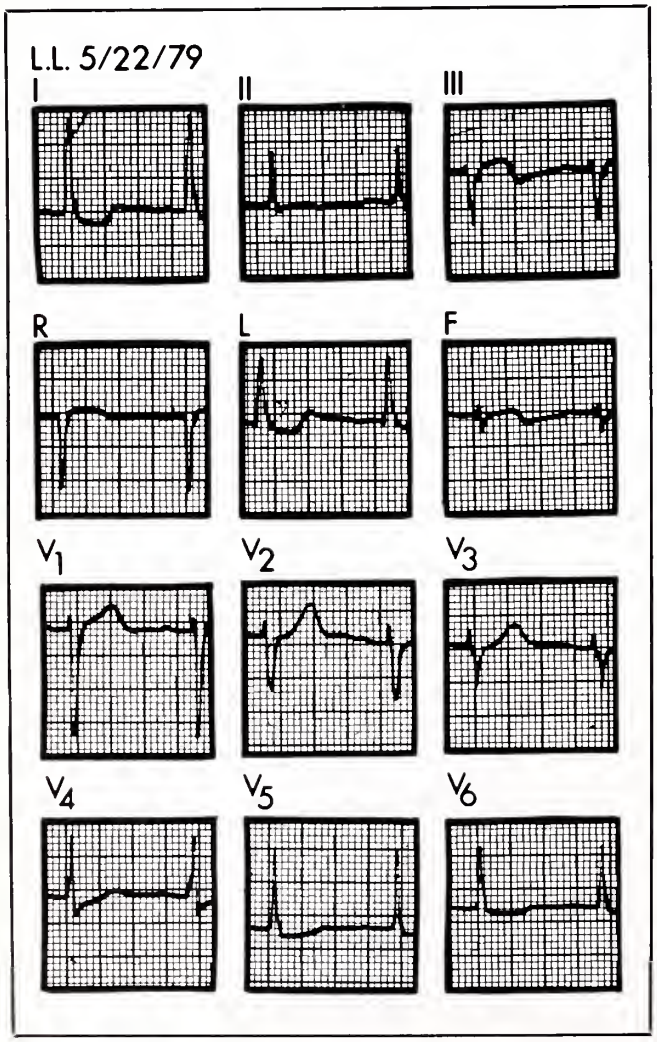


FIG. 1: Twelve lead electrocardiogram taken on admission demonstrating sinus rhythm with inferior subepicardial injury. The ECG is recorded at normal standardisation.

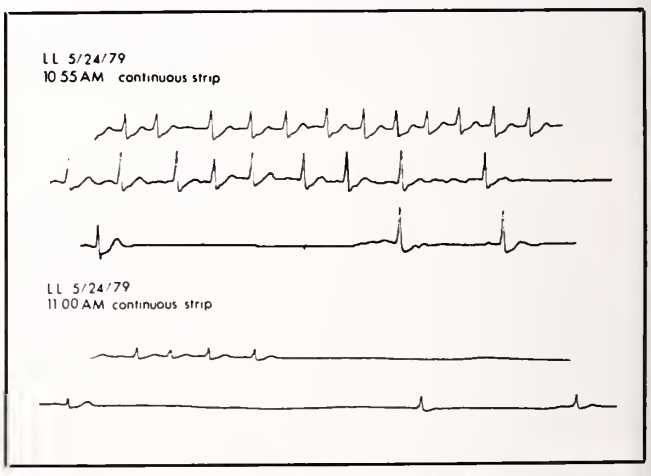


FIG. 2: Electrocardiographic monitor leads demonstrating two episodes of spontaneous atrial fibrillation with spontaneous conversion followed by prolonged episodes of sinus arrest. During these episodes the patient complained of dizziness.

eratively, her electrocardiograms demonstrated normal pacemaker function and she was discharged on the 11th hospital day receiving Nitroglycerin, Lente Insulin 50 units sc, and Digoxin 0.25mg qd. In view of her age and questionable compliance it was elected not to prescribe anticoagulants.

Her follow-up in the Special Heart Clinic has been uncomplicated and she has denied further episodes of dizziness or syncope. She continues to have infrequent anginal-type chest pains. Her subsequent course was complicated in March 1980, by one episode of acute pulmonary edema related to discontinuance of her medication. She responded to oxygen and diuretic therapy and reinstitution of digitalis. A superimposed E coli urinary tract infection responded to appropriate antibiotic therapy. When last seen in March 1980, she continued to do well with no symptoms of shortness of breath, chest pain, dizziness or syncope. Her diabetes remained in good control and her pacemaker was functioning normally.

HISTORICAL ASPECTS OF THE ORIGIN OF THE HEARTBEAT

Very early references to the heart's pumping action were made in ancient Egyptian times. A quotation from the Eber's Papyrus noted . . . "for everywhere he feels his heart because its vessels run to all his limbs." Hippocrates was one of the earliest to record an interest in the origin of the heartbeat noting that . . . "air coming into the heart from the trachea and lungs falls upon a (vestal) flame which sets it into violent effervescence which drives it out through the openings of the great arteries and at the same time causes the swelling of the heart known as diastole." This theory was modified by Sylvius to conform with the views of the alchemists of the early 16th Century, . . . "the alkaline venous blood, meeting the acid chyle and also the acid bile, becomes effervescent and causes diastole."

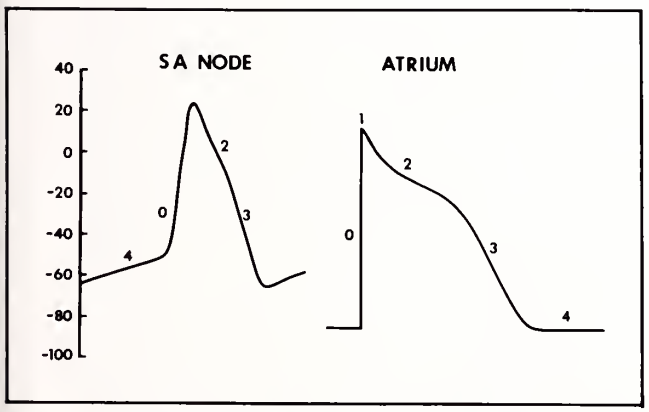


FIG. 3: Comparison of the action potential of a pacemaker cell in the sinoatrial (SA) node with that of a cell from the surrounding atrial tissue. Note that the action potential of the sinus node pacemaker demonstrates upsloping of phase 4, slower rate of rise of phase 0 and a less negative resting membrane potential.

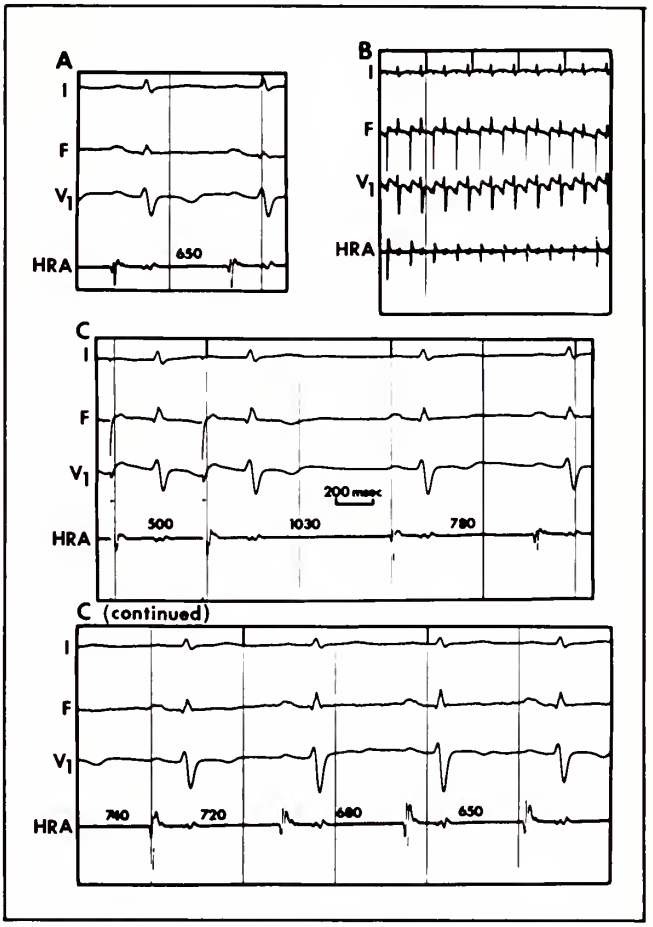


FIG. 4: Measurement of sinus node recovery time in a normal patient. Surface recordings of electrocardiographic leads I, aVF and V_1 are shown together with an intracavitary high right atrial (HRA) electrogram. A) The underlying sinus rhythm is shown at a cycle length of 650msec (approximately 92 beats/min). B) The atria are then paced at a cycle length of 500msec (120 beats/min), chosen because at this pacing rate the longest post pacing recovery time was produced. This recording was made at a slower paper speed. C) After two minutes of pacing at a cycle length of 500msec, the atrial pacing is abruptly terminated and the time to recovery of the sinus pacemaker of 1030msec is taken as the sinus node recovery time (SRT). There is subsequent progressive shortening of the sinus node cycle length over the ensuing beats such that the original sinus node cycle length of 650msec (noted in A above) returns by the sixth post drive cycle. From the above study, the following calculations can be made: SRT = 1030msec; corrected SRT = 1030 - 650msec = 380msec; %SRT/CL = 1030/650% = 158%; total recovery time = 1030 + 780 + 740 + 720 + 680msec = 3.95secs. All of these measurements are within normal limits.

Thereafter, the "neurogenic theory" attributed to Willis in 1664 stated that the heart's rhythmic activity originated from the nerves entering it. Despite widespread acceptance of this neurogenic theory, Haller in 1754, put forward the concept that the heartbeat originated from the inherent irritability of myocardial cells and this was supported by the finding that all hearts were capable of rhythmic contraction following denervation. A subsequent continuous body of evidence, such as the demonstration that the embryonic heart begins its rhythmic contraction long before it becomes innervated, and the fact that cultured myocardial cells completely free of neural influence would maintain rhythmic contraction, finally led to the dominant acceptance of this so-called "myogenic theory." In 1906, Professor Arthur Keith and his medical student associate, Martin Flack, while attempting to verify the work of Tawara, who had demonstrated the presence of the atrioventricular (AV) node, noted a strange aggregation of cells at the junction of the superior vena cava (SVC) and right atrium (RA), and are thus generally given credit for the discovery of the sinoatrial node (SAN).

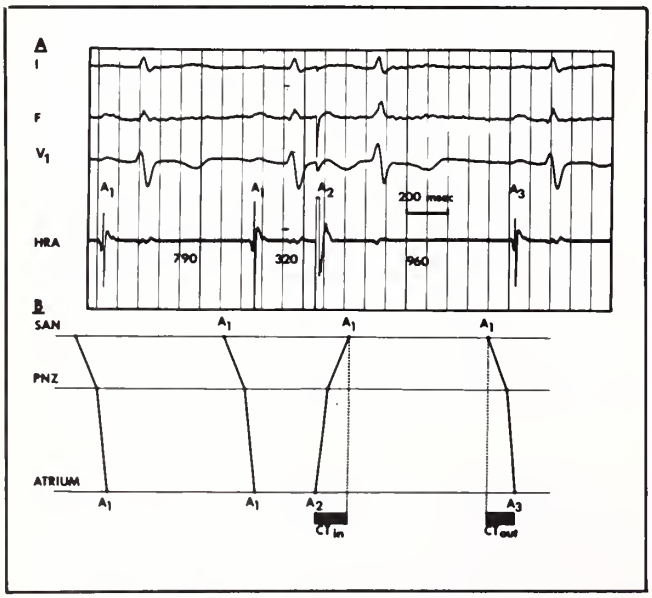


FIG. 5: Measurement of sinoatrial conduction time (SACT) in a normal patient. A) Demonstrates surface recordings from electrocardiographic leads I, aVF and V_1, together with an intracavitary recording from a high right atrial (HRA) electrode. The basic sinus cycle length (A_1 - A_1) is 790msec. After the second beat a premature atrial stimulus (A_2) is introduced at a coupling interval of 320msec. The return cycle length (A_2 - A_3) is 960msec. Calculation of the bidirectional SACT is as follows: SACT = (A_2 - A_3)-(A_1 - A_1) = 960 - 790msec = 170msec. Thus, the undirectional conduction time (170/2msec) of 85msec is within normal limits. B) The ladder diagram for the above conduction sequence is shown from the sinoatrial node (SAN) to the perinodal zone (PNZ) and into the surrounding atrial tissue. The conduction time taken for the premature impulse A_2 to penetrate the node (CT_{IN}) is assumed to be the same as the conduction time out of the node (CT_{OUT}).

ANATOMY, PHYSIOLOGY AND PATHOLOGY

The sinus node lies near the junction of the SVC and RA and is approximately 10-20mm in length, roughly the shape of a flattened elipse and lies 1mm beneath the surface of the epicardium.[1] Because of this superficial location, the node is particularly vulnerable to diseases that afflict the surface of the heart, most notably pericarditis. On cross-section one of the most striking internal features is the presence of a disproportionately large artery that passes through the center of the node. As such, it is ideally located, being one of the first branches of a main coronary artery, to monitor central arterial pressure and pulsation. This has led to speculation that pulsations in the artery are linked to pacemaker activity of the sinus node, and indeed there is evidence to indicate that physiologic and pharmacologic maneuvers that accelerate sinus node activity will decrease the caliber of the artery, while maneuvers that decelerate sinus node activity will lead to an increase in the caliber in this artery. A dense collagen framework supports the node and is closely attached to the whole circumference of the central artery. The blood supply of the node is unilaterally derived from either the proximal right coronary artery (55%) or proximal left circumflex artery (45%). A knowledge of this anatomy may be of clinical usefulness in that patients presenting with acute inferior myocardial infarc-

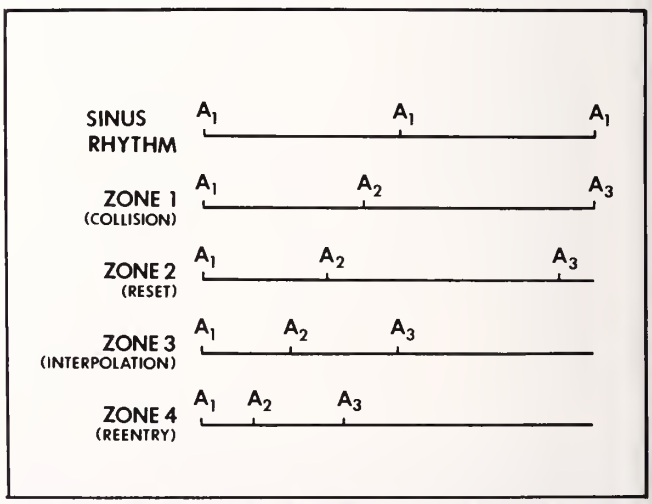


FIG. 6: Response of the sinus node to atrial premature stimuli of various degree of prematurity. (See text for discussion.)

tions who subsequently develop atrial arrhythmias or bradycardias, can be expected to have occlusions of the proximal portion of the right coronary artery.

The ultrastructure of the node is such that specialized cells, P cells, so called because of their pale cytoplasm, from which it is felt that the electrical impulse is generated, are present in abundance. These cells are small, ovoid or round, and are approximately 5-10μ in diameter. They occur in clusters or rows and are most abundant toward the center of the node. In contrast with skeletal muscle there are no nerve endings terminating directly onto the cell surface. The anatomical arrangement is such that the electrical impulses transmit from the P cell to the Purkinje network, and hence to working myocardial cells, via a transitional cell type or "T cell."[1] The T cell then forms an important link between the P cell and the rest of the Purkinje network.

From a physiologic standpoint, microelectrode studies of these pacemaker cells in the region of the sinus node have demonstrated a unique characteristic that is peculiar to pacemaker tissue. This is the property of spontaneous diastolic depolarization that is cyclical and repetative in nature. A comparison of the action potential of the pacemaker cell in the sinus node to that of the surrounding atrial tissue is shown in Figure 3. The striking differences include, the upsloping of phase four, together with a slow rate of rise of phase zero, and a less negative resting membrane potential. The special characteristics of the sinus node put it somewhat at a disadvantage since, because of its sparse intercellular connections, pacemaker activity in one cell may fail to excite the remainder of the sinus node cells, or may fail to propagate an impulse into the atrium. Thus, if a P cell fails to reach its threshold during phase four, an impulse will be missing (P cell or generator failure), while if an impulse having been generated by the P cell, fails to conduct through the boundary of the node into the atrial perinodal area (T cell failure) then a failure of conduction (exit block) will occur. Both failure of impulse generation and impulse conduction are features of the SSS.

Pathologic information regarding disease of the sinus node is sparse since a systematic examination of the conduction system is rarely included as part of a routine autopsy. Thery[2] in a large study of 111 patients in whom detailed histologic examinations of the sinus node and conduction system were undertaken, demonstrated that fibrosis appeared to be the predominent lesion in sinus node disease. In those patients with the bradycardia-tachycardia syndrome, lesions were found not only in the sinus node but also in the atrial tissue and in general, appeared to be more extensive. Those patients with chronic SA block also tended to have more extensive disease with lesions present in the approaches of the AV node or within the AV node itself. On the other hand, despite extensive destruction of the sinus node, some patients could maintain sinus rhythm. Perhaps one of the most interesting findings was the fact that the nodal cell population appeared to decline with age. Thus, the percent amount of nodal cells in subjects over 60 years was significantly less than those younger than 60 years of age, and in some patients, the percent amount of nodal cells present was less than 5%. This loss of nodal cell population with age must be a significant factor in the frequency of atrial arrhythmias that are seen in an elderly population.

ETIOLOGY AND CLINICAL MANIFESTATIONS

A list of disease entities that have been associated with the SSS is shown in Table 1. Although sinus node dysfunction may occur secondary to a host of agents (including hypokalemia, quinidine, nicotine, beta blockers, aerosol propellants, fluorinated hydrocarbons) these effects are usually transitory and reversible in nature and are not considered part of the SSS.

Coronary artery disease (CAD) is associated with SSS in over 50% of the cases. Despite this, a vascular etiology for the syndrome has never been proven. The role of coronary disease (or more specifically, sinus node artery disease) in SSS is still controversial. Engle[3] in one study found that in 23 patients with disease of the sinus node artery, none had evidence of SSS, while in five patients with SSS, none had disease of the artery. Therefore, he felt it unlikely that SSS was related to chronic CAD. While Jordan,[4] on the other hand, demonstrated that in patients with chronic CAD, the more severe the coronary disease, the worse were the electrophysiologic parameters of sinus node function. Hence, he felt that coronary disease did play a pathogenic role in

the development of sinus node dysfunction. The issue, therefore, is unresolved. There are a large number of patients, however, in whom no underlying etiology can be identified. They may represent those with an ongoing fibrotic process that, when associated with aging, is termed Lev's disease, or when seen in younger patients, is termed Lenegre's disease. Other diseases associated with SSS include hypertension, inflammatory disease such as rheumatic fever and pericarditis, infiltrative disorders such as amyloid and hemachromatosis, and collagen vascular diseases. SSS is also seen as part of the various myopathies (Friedrich's ataxia, and progressive muscular dystrophy), and an interesting association with thyrotoxicosis has been described. Iatrogenic or surgical damage to the node is seen with a variety of cardiac surgical procedures, one of the more common being the surgical repair of an atrial septal defect.

Perhaps one of the most interesting forms of the SSS is that occuring with a familial distribution.[5-10] Autopsy studies of children afflicted with the familial syndrome of hereditible QT prolongation, cardiac arrhythmias, syncope, sudden death, occasionally associated with congenital deafness[7,8] have revealed obliterative changes in the intranodal portion of the SAN artery with degenerative changes in the node.[9] Sinus node dysfunction has also been described in families as an autosomal dominant trait, occasionally associated with mental retardation, without the QT prolongation.[6] Therefore, a family history identifying family members with syncope, cardiac arrhythmias and palpatations, should be obtained from all patients with evidence of sinus node dysfunction, and those family members so identified should be carefully observed for the development of serious cardiac arrhythmias.

The clinical manifestations indicate no apparent sex preponderance in the SSS. The peak incidence is in the seventh decade, although there is an apparent bimodal age distribution. It is important, therefore, to remember that the SSS can occur in children and has been proposed as a cause of sudden death in young athletes. Signs and symptoms of this syndrome are often difficult to recognize as they may be intermittent, drawn out, multiple, and sometimes difficult to distinguish from the underlying disease (Table 2). From a physiologic standpoint, symptoms will often result from hypoperfusion of vital organs and hence, 50% of the patients will present with cerebral symptoms of dizziness, presyncope or syncope. Other symptoms may be fairly nondescript and include fatigue, irritability and forgetfulness, and in this age group, may easily be attributed to senility. Palpitations occur in those patients experiencing tachyarrhythmias, while a significant number of patients suffer systemic embolization. Angina pectoris and congestive heart failure may often be presenting symptoms in those patients with associated tachy- and bradyarrhythmias producing an inappropriately low cardiac output. Except for the findings of inappropriately slow heart rates, the physical examination is usually unhelpful in diagnosis.

DIAGNOSIS AND TREATMENT

The 24-hour ambulatory electrocardiogram (Holter monitor) has become a mainstay in the diagnosis of the SSS. Here, an attempt is made to document the presence of an arrhythmia and relate its occurence to the concurrence of symptoms. When interpreting the results of this recording, it is important to recognize that marked variation occurs within a normal population. Thus, in one study of 50 healthy medical students, heart rates while awake ranged from 65 to

TABLE 1

ETIOLOGY OF SICK SINUS SYNDROME

a. Ischemic heart disease
b. Idiopathic
c. Hypertensive heart disease
d. Inflammatory [rheumatic fever, pericarditis]
e. Infiltrative diseases [amyloid, hemochromatosis]
f. Collagen vascular disorders
g. Mucular dystrophies [Friedrich's ataxia, PMD]
h. Metastatic disease
i. Metabolic [thyrotoxicosis]
j. Cardiomyopathy
k. Iatrogenic [surgery, etc.]
l. Congenital heart disease
m. Familial syndromes [Familial SSS, prolonged Q-T syndrome, SSS with PR prolongation]

TABLE 2

CLINICAL MANIFESTATIONS OF THE SICK SINUS SYNDROME

a. Syncope, presyncope, dizziness
b. Palpitations
c. Systemic embolisation
d. Angina
e. Congestive heart failure

190 beats per minute, and while sleeping, marked sinus bradycardia with rates ranging from 35 to 115 beats per minute were found.[11] Thus, a marked variability in heart rate is present in the normal population, and hence, isolated asymptomatic sinus bradycardia must be viewed with caution and may not indicate sinus node disease. Sinus pauses, sinus arrest, and even type I second degree AV block were all recorded in this normal population, usually during sleep. The presence of frequent PAC's (greater than 15/hr) or PVC's (greater than 35/hr) is uncommon in the normal population. One study (12) has demonstrated that elderly people with sinus rates between 40 and 50 beats per minute, who were asymptomatic, had normal hemodynamic responses to exercise, and did not have evidence of sinus node disease. If the demonstration of sinus node dysfunction with the electrocardiographic manifestations mentioned above can be shown to occur in the presence of symptoms and in the absence of drugs, then the diagnosis of SSS can be made. Often, the correlation of the electrocardiographic findings especially the presence of isolated sinus bradycardia, may be difficult to relate to the clinical manifestations. In these instances, further analysis of sinus node function may be required and will include both assessment of the response of the SAN to various pharmacological maneuvers, together with invasive electrophysiologic study (Table 3).

Pharmacologic assessment of the effect of autonomic tone can be performed by the administration of Atropine, 1 to 3mg intravenously. A normal response would be an increase in heart rate to 90 beats per minute or greater, or a decrease of greater than 20 to 50% in the basic cycle length. Infusions of Isoproterenol (1-3mcg/min) will increase the heart rate by greater than 25% in the normal population. The administration of both Atropine (0.04mg/kg) and Propranolol (0.2mg/kg) is an attempt to pharmacologically denervate the heart and to determine the intrinsic heart rate (IHR). The IHR is age dependent in persons 15 to 70 years of age, and is defined by the regression equation: IHR = 117.2 (0.53 x age) beats per minute.[13] Depression of the IHR correlates well with other abnormalities of sinus node dysfunction and may identify patients who truly have sinus node dysfunction.

The electrophysiologic evaluation of sinus node function includes invasive measurements of sinus node automaticity and sinoatrial conduction.

TABLE 3

DIAGNOSTIC TESTS OF SINUS NODE FUNCTION

- **A. Electrocardiographic assessment:**
  - i 12 lead ECG
  - ii 24 hour ambulatory ECG
- **B. Pharmacologic assessment:**
  - i Atropine (1-3mg IV)
  - ii Isuprel (1-3mcg/min)
  - iii Pharmacologic denervation (Atropine 0.04mg/kg + Propranolol 0.2mg/kg)
- **C. Electrophysiologic assessment:**
  - i Response to overdrive atrial pacing.
    - a) Sinus node recovery time (SRT)
    - b) Corrected SRT (CSRT)
    - c) %SRT/basic sinus cycle length
    - d) Total recovery time
    - e) Evaluation of secondary pauses
  - ii Response to premature atrial stimulation:
    - a) sinoatrial conduction time (SACT)

Sinus Node Recovery Time (SRT)

The analysis of the response of the sinus node to overdrive suppression has become one of the most widely used tests of sinus node automaticity. The atria are paced at increasingly shorter cycle lengths and the degree of delay which occurs in the first cycle following the cessation of pacing is assumed to reflect the degree of suppression of sinus node automaticity (Figure 4). The various measurements applied to this examination include the maximal sinus node recovery time (SRT), the corrected SRT (SRT minus the basic sinus cycle length), percent SRT/sinus cycle length, and total recovery time (time to return to basic sinus cycle length). The normal corrected

TABLE 4

EFFECT OF DRUGS ON SINUS NODE FUNCTION IN SSS

	CL	SRT	SACT	SOURCE
Digoxin	→	↓	→	Engel et al[16]
Atropine	↓	↓	→	Dhingra et al[17]
Inderal	↑	↑	↑	Strauss et al[18]
Lidocaine	→	↓	↑	Dhingra et al[19]
Disopyramide	↓	—	—	Siepel et al[20]

Abbrieviations: CL=sinus cycle length; SRT=sinus node recovery time; SACT=sinoatrial conduction time.

SRT is usually less than 550msec.[14] In addition, sudden unexpected pauses, or so-called "secondary pauses," occuring during the recovery period that fall outside the expected normal pattern, are an important adjunct to the measurements of sinus node recovery.[15]

Sinoatrial Conduction Time (SACT)

The measurement of impulse conduction from the sinus node to the surrounding atrial tissue relies upon indirect methods that measure the response of the SAN to the introduction of programmed premature atrial stimulation (Figure 5). During normal sinus rhythm, increasingly premature atrial stimuli are delivered to the atrium and a measurement is made of the time to the next sinus beat in the return cycle. Figure 6 demonstrates the four types of response seen as progressively premature atrial stimuli are delivered. When fairly late premature atrial stimuli are delivered (Zone I), the wavefront from the sinus node discharge collides with that of the atrial premature stimulus, and hence the return sinus beat occurs at the expected time. If the atrial stimulus is delivered more prematurely (Zone II), the atrial impulse enters the sinus node, resets it, and the return sinus beat occurs slightly earlier than expected. As the atrial stimulus is introduced even more prematurely, it encounters the sinus node still refractory and thus does not disturb the basic sinus cycle and is hence interpolated (Zone III). Zone IV represents the phenomenon of reentry where the premature atrial stimulus generates a return cycle occuring earlier than the expected spontaneous sinus cycle length and is probably due to re-entry in the region of the sinus node. It is in the range of Zone II that measurements of the sinoatrial conduction time can be made. The time of conduction into and out of the node can be assumed by subtracting the basic sinus cycle length from the return cycle (Figure 5). The normal range for the undirectional SACT has been variously reported between 40-156msec.[14]

The multiplicity of tests available for the evaluation of SAN function indicates that there is no one specific diagnostic test. A variety of interventions may be required to characterize disturbances of SAN automaticity and sinoatrial conduction in patients with sinus node disease.

The treatment of SSS deserves special comment since the medical therapy of various brady- and tachyarrhythmias present the physician with a therapeutic dilemma. Hence, agents used to treat one extreme (tachyarrhythmias) may precipitate the other extreme (bradyarrhythmias). Fortunately, perhaps the safest antiarrhythmic agent in the SSS is probably digitalis. When ouabain was administered intravenously to patients with SSS, no change in basic cycle length or slowing of the heart occurred.[16] Most of the other antiarrhythmic agents may have adverse consequences on sinus node function and some of these effects may be unpredictable (Table 4).[16-20] It is therefore suggested, that if the initiation of antiarrhythmic therapy is entertained in patients with SSS, then this should be instituted in a monitored setting so that any bradyarrhythmias produced may be judiciously treated.

The dilemma over the use of drugs in the SSS has led, in recent years, to the increasing use of permanent artificial pacemakers. Pacemaker therapy remains the foundation of treatment for those patients with major symptoms, usually those of cerebral or coronary insufficiency, and it is estimated that up to 30% of permanent pacemakers are currently inserted for problems of sinus node dysfunction. The question of the value of atrial vs ventricular pacing is often raised. Atrial pacing is a more physiologic modality as it will preserve the atrial transport mechanism (or "atrial kick"), which may be responsible for up to 30% of the cardiac output in some elderly patients. However, up to 60% of patients with SSS will have concommitant disease of the AV node and specialized conduction tissue. Hence, before rational decisions can be made regarding the site of permanent pacemaker placement, studies of AV node function using HIS bundle electrocardiograms should be recorded. These can be performed at the time of an electrophysiologic study. There is no question that pacemaker therapy will improve symptoms related to bradyarrhythmias in patients with SSS, and may also be responsible for a reduction in the number of tachyarrhythmias encountered. Pacemaker therapy will also allow a more aggressive use of antiarrhythmic agents used to control tachyarrhythmias. However, the long-term prognosis in patients permanently paced for SSS is perhaps not as good as was originally reported. Recent studies

have demonstrated between a 30% and 40%, two-three year mortality, while in those patients who had return of symptoms despite pacemaker insertion, the mortality seems higher.[21] This high mortality is probably related to the severity of the underlying disease since it has been shown that when patients are grouped according to the severity of the associated disease, the mortality appears to be that of the underlying disease.[22] Although pacemaker therapy will effectively treat the major symptoms in SSS, it may not, therefore, prolong life. Thus, recommendations for pacemaker placement should only be made in those patients that are symptomatic.

Finally, anticoagulant therapy has become part of the treatment modality in this syndrome. A study of 100 patients with chronic sinoatrial disorders[23] confirmed the previous reports of a high incidence of systemic embolization in these patients. In particular, patients at risk appeared to be those over the age of 50 years with the bradycardia-tachycardia form of the SSS. Correction of the bradyarrhythmias by permanent pacing did not remove the risk of embolization which is felt to be due to thrombus formation in a mechanically inactive atrium, as in atrial fibrillation. Their findings led the authors of this study to recommend prophylactic anticoagulation in patients most at risk, namely, those over 50 years of age with the bradycardia-tachycardia syndrome, patients with evidence of prolonged atrial asystole, and those with a previous history of embolism. Whether the benefits of anticoagulation in this elderly population outweigh the therapeutic risks, remains a clinical decision.

SUMMARY

The sick sinus syndrome is a group of disorders characterized by sinus node dysfunction whose electrophysiologic manifestations include: sinus bradycardia, sinus arrest, sinus exit block, chronic atrial fibrillation with slow ventricular response in the absence of drugs, and the failure to resume sinus rhythm after cardioversion. The clinical manifestations are often related to hypoperfusion of vital organs and the diagnosis can be made with the aid of electrocardiographic, pharmacologic and electrophysiologic study. The treatment of associated arrhythmias is often difficult and presents a medical therapeutic dilemma. The increasing use of permanent pacemaker therapy has proven beneficial in the symptomatic patient, although the long-term prognosis remains that of the underlying disease. Patients over the age of 50 years with the bradycardia-tachycardia form of the sick sinus syndrome are particularly at risk for systemic embolization and might benefit from anticoagulant therapy.

References James TN: Anatomy of the human sinus node. *Anat Rec* 141:109, 1961 2. Thery C, Gosselin B, Lekieffre J, et al: Pathology of sinoatrial node. Correlations with electrocardiographic findings in 111 patients. *Am Heart J* 93:735, 1977. 3. Engel TB, Meister SG, Feitosa GS, et al: Appraisal of sinus node artery disease. *Circulation* 52:286, 1975. 4. Jordan J, Yamaguchi, Mandel WJ: Characteristics of sinoatrial conduction in patients with coronary artery disease. *Circulation* 55:569, 1977. 5. Spellberg RD: Familial sinus node disease. *Chest* 60:246, 1971. 6. Lehmann H, Klein UE: Familial sinus node dysfunction with autosomal dominant inheritance. *Br Heart J* 40:1314, 1978. 7. Jervell A, Lange-Nielson F: Congenital deaf mutism. Functional heart disease with prolongation of the QT interval and sudden death. *Am Heart J* 54:59, 1957. 8. Ward OC: A new familial cardiac syndrome in children. *J Irish Med Assoc* 54:103, 1964. 9. Fraser GR, Froggart P, James TN: Congenital deafness associated with electrocardiographic abnormalities, fainting attacks and sudden death. A recessive syndrome. *Quart J Med* 33:361, 1964. 10. Phillips J, Ichinose H: Clinical and pathological studies in the hereditary syndrome of a long QT interval, syncopal spells and sudden death. *Chest* 58:236, 1970. 11. Brodsky M, Wu D, Denes P, et al: Twenty-four electrocardiographic monitoring in 50 male medical students. *Circulation* 54:25A, 1976. 12. Arguss NS, Rosin EY, Adolph RJ, et al: Significance of chronic sinus bradycardia in elderly people. *Circulation* 46:924, 1972. 13. Jose AD: Effect of combined sympathetic and parasympathetic blockage on heart rate and cardiac function in man. *Am J Cardiol* 18:476, 1966. 14. Josephson ME, Seides SF: Clinical cardiac electrophysiology. Techniques and interpretations. Lea and Febiger, Philadelphia, 1979, pp. 61-78. 15. Benditt DG, Strauss HC, Scheinman MM, et al: Analysis of secondary pauses following termination of rapid atrial pacing in man. *Circulation* 54:436, 1976. 16. Engel TR, Schaal SF: Digitalis in the sick sinus syndrome. The effects of digitalis on sinoatrial automaticity and atrioventricular conduction. *Circulation* 48:1201, 1973. 17. Dhingra RC, Amat-Y-Leon F, Syndham C, et al: Electrophysiologic effects of atropine on sinus node and atrium in patients with sinus node dysfunction. *Am J Cardiol* 38:848, 1976. 18. Strauss HC, Gilbert M, Stevenson RH: Electrophysiologic effects of propranolol on sinus node function in patients with sinus node dysfunction. *Circulation* 54:452, 1976. 19. Dhingra RC, Deedwania PC, Cummings JM, et al: Electrophysiologic effects of Lidocaine on sinus node and atrium in patients with and without sinoatrial dysfunction. *Circulation* 57:448, 1978. 20. Seipel L, Breithardt G: Sinus recovery time after disopyramide phosphate. *Am J Cardiol* 37:118, 1976. 21. Wohl AJ, Laborde J, Atkins JM: Prognosis of patients permanently placed for sick sinus syndrome. *Arch Intern Med* 136:406, 1976. 22. Freuhan CT, Heneghan WF, Eich RH: Late mortality of patients with sick sinus syndrome. *Circulation* 54:(Suppl II) 302, 1976. 23. Fairfax AJ, Lambert CD, Leatham A: Systemic embolism in chronic sinoatrial disorder. *NEJM* 295:190, 1975.

Christopher J. Havelda, M.D.

Blue Cross
Blue Shield
Delta Dental
of Kentucky



Before you crack...

learn to handle stress.

Unless you cut yourself off totally from all stimuli, you can't go through life without some stress. And you wouldn't want to. Stress helps us meet life's challenges and deal with problems.

But too much stress, or chronic over-stress, can lead to serious health problems like high blood pressure, ulcers and other diseases. Left uncontrolled, it could even lead to heart disease.

Since you can't avoid all stress, learn how to control it. One of the best ways is simply to set aside some time everyday to "do your own thing." Meditate, pursue a quiet hobby, go for a walk, or just relax. Learning to relax is learning to handle stress.

You'll be healthier and happier in the long run. And staying healthy is the best kind of health care—and the least expensive. At Blue Cross and Blue Shield and Delta Dental of Kentucky we're concerned about rising health care costs.

Write us for information on enrolling in quality health care prepayment plans. Blue Cross and Blue Shield and Delta Dental of Kentucky, 9901 Linn Station Road, Louisville, KY 40223.

®Reg. Mark Blue Cross Assn. • ®Reg. Mark Blue Shield Assn. • ™Delta Dental Plans Association

American Made

THE good ol' U.S.A. has been taking it on the chin recently and some of the criticism, deserved or not, is coming from within. Many industries are in trouble because consumers feel this has become a plastic society with mass production of poor workmanship and shoddy design. Our hearts tell us to "Buy American" but the head suggests foreign products may be better if not cheaper.

Let us hope that this general dissatisfaction does not wash-over into health delivery and medicine. The physician is sort of a technician that delivers a product—ephemeral as it may be. We are in charge of design, production, delivery and salesmanship of our care and management of symptoms.

Care. That's the operative word that makes us different. How did Sir William Osler put it? "The Art in caring for the patient is in caring for the patient." This aphorism confused me in my early days as a student and house officer when most of my time and effort was spent learning and doing, trying to pass the next quiz or oral exam.

When I entered private practice there began a subtle change. The patient was not quite as sick. There was less organic disease to treat. Doctor-patient relationship was prolonged and more intense, and with this relationship came the caring. In the footsteps of caring came the patient trust. Care and trust. There's a pretty good one-two combination. Too bad we can't franschise that in a package and send it to our ailing industries.

MFM

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

In G.I. therapy



Adjunctive Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE®

Roche Products, Inc
Manati, Puerto Rico 00701

Motrin® vs codeine...

ibuprofen



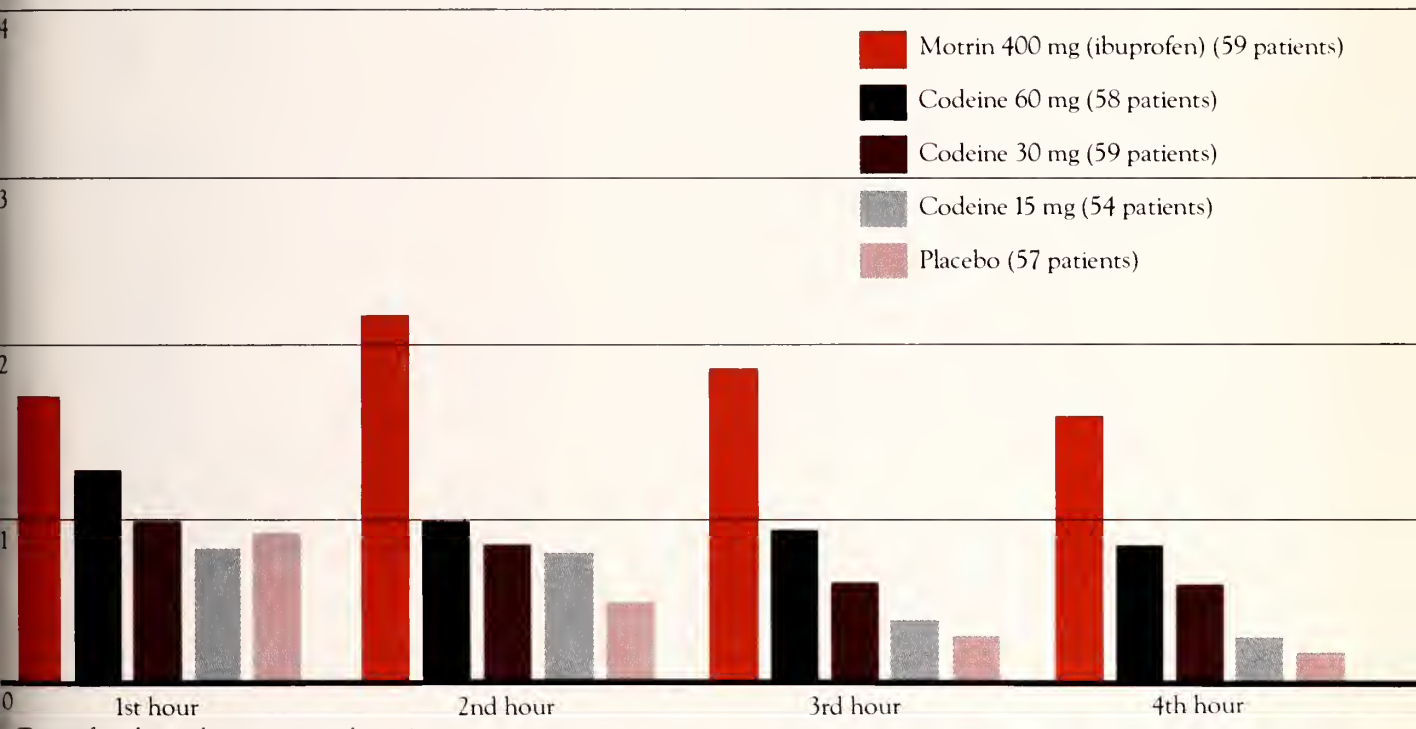
© 1980 The Upjohn Company

compare the analgesic effect

Motrin (ibuprofen) 400 mg tablets provided greater relief of pain than codeine in a double-blind, randomized clinical study of 287 patients. *Motrin* was significantly more effective ($p < 0.01$) than codeine 60 mg at the 2-, 3- and 4-hour intervals...significantly more effective ($p < 0.01$) than codeine 30 mg, codeine 15 mg, and placebo at all intervals.

Degree of pain relief—mean scores

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Data on file at The Upjohn Company.

One tablet q4-6h prn pain

A well-tolerated, nonnarcotic prescription for mild to moderate pain

Motrin® 400 mg TABLETS

ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming • Acts peripherally
- Relieves pain rapidly • Indicated in acute and chronic pain • Well tolerated
- The most common side effect with *Motrin* is mild gastrointestinal disturbance.

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin* used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

MED B-4-S

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-7835-4

May 1980

It's hard to decide who needs your gift the most, isn't it?



United Way helps you do the right thing.

You give so generously. And yet, you can't help wondering if you're helping all the people you can.

When you give through United Way, you support a wide range of human services. Needs and distribution of funds are reviewed by local volunteers. People like you who visit agencies, go over budgets, check for duplication.

All to make sure your one generous gift does all you want it to do.

Thanks to you, it works. for all of us.

United Way

A Public Service of This Magazine & The Advertising Council

Surgical Management of Erectile Impotence

The causes of erectile impotence may be psychological or organic. Psychological causes account for approximately 90% of erectile impotence in patients who present to their family physician. Once this diagnosis is established patients are best treated with reassurance and, occasionally, sex counselling.

Only about 10% of patients are impotent because of organic disease. The most common underlying diseases are diabetes mellitus, arteriosclerotic aorto-iliac disease, and postsurgical and spinal cord injuries. Less-common causes are priapism and Peyronie's disease. Medications that act on the autonomic nervous system also may cause impotence that is usually reversible.

When the cause, whether psychogenic or organic, is in doubt, a psychiatric evaluation must be sought to identify emotional factors. The nocturnal penile tumescence monitor can establish the presence or absence of erections during sleep, thereby helping to distinguish between psychogenic and organic impotence. The patient and his partner should be counselled extensively before any surgical procedure is undertaken.

There are two main types of penile prostheses used to manage erectile impotence. The first is a pair of flexible silastic rods inserted inside the corpora cavernosa. The prototype is the Small-Carrion prosthesis. There have been several minor modifications of this prosthesis which have increased its effectiveness. The second, the Scott prosthesis, is an inflatable pair of hollow cylinders that are placed inside the corpora cavernosa, with a reservoir for fluid and a pump to transfer fluid from the reservoir to the cylinders.

Each prosthesis has its own advantages and disadvantages. The Small-Carrion prosthesis is less expensive, easier to insert, and must less likely to fail mechanically. The Scott prosthesis is, however, more aesthetically pleasing because the patient can select a state of flaccidity or turgidity at his own discretion. After both prostheses are described to the patient, he may choose the one most appropriate to his needs.

James I. Harty, M.D.
Mohammad Amin, M.D.

Provided by the Department of Surgery, Section of Urology, University of Louisville School of Medicine, Louisville, Ky, at the request of the KMA Continuing Medical Education Committee.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

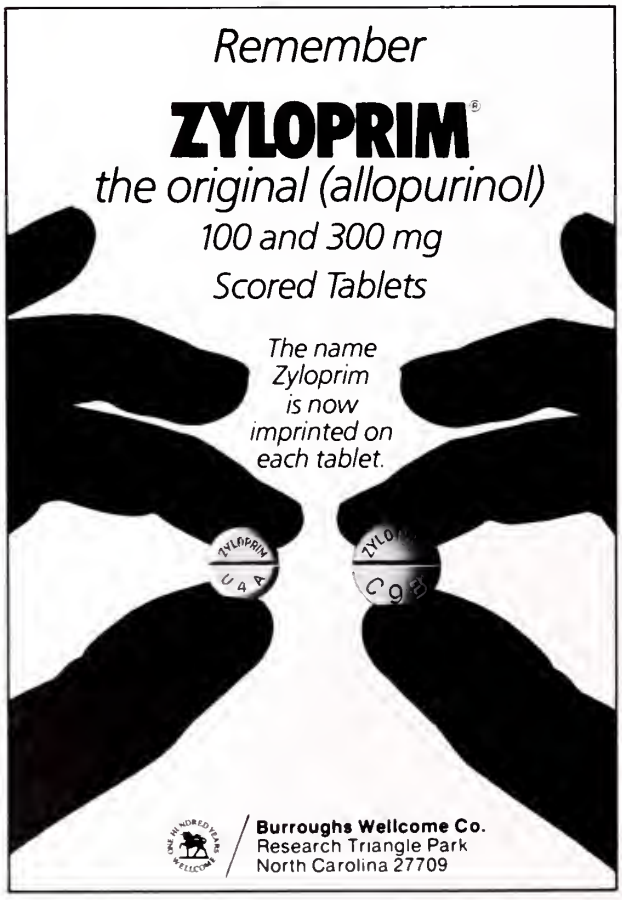
The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

POSITION WANTED

PATHOLOGIST AVAILABLE. Locum Tenens by day or month. Experienced, certified. G. Rich, M.D., (606) 236-7154, Box 72, Danville, KY.

SERVICES

TRANSCRIPTION, LTD. General, Medical, Legal Transcription, Free-Lance Research and Writing. Rates and references on request. Phone 895-7639, 895-6273 or 944-6208.



CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumaniae)
Otitis media caused by S. pneumoniae (formerly D. pneumaniae) and H. influenzae
Acute exacerbation of chronic bronchitis caused by H. influenzae*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to H. influenzae.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by E. coli and P. mirabilis. (This drug should not be used in any E. coli and P. mirabilis infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anophylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

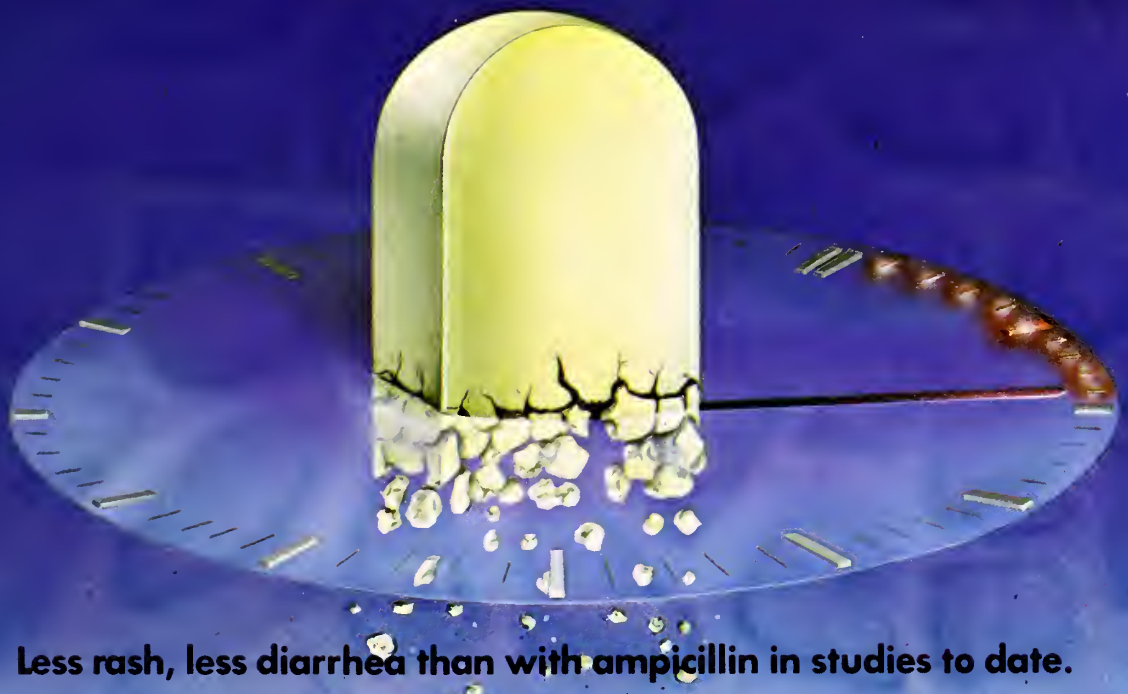
INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Phoryngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin *Structures*	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa. 19101

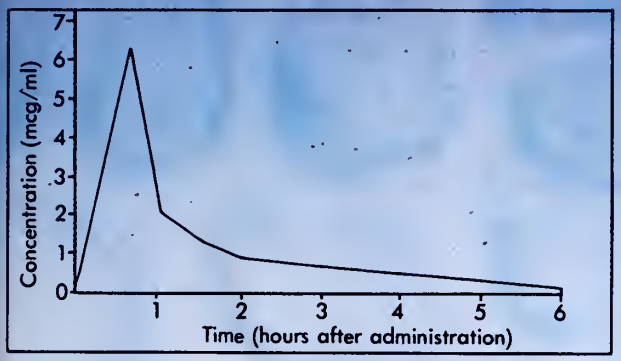
Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



Less rash, less diarrhea than with ampicillin in studies to date.

Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

High Cure Rates with CYCLAPEN®-W (cyclacillin)		
Causative Organism	Bronchitis/Pneumonia†	No. of Patients
S. pneumoniae	100%	73
	95%	
Chronic Bronchitis† (acute exacerbation)		
H. influenzae	92%	12
	Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.	
Streptococcal Sore Throat†		
Group A beta-hemolytic Streptococcus	100%	44
	86%	
% Clinical Response % Bacterial Eradication		

†Due to susceptible organisms.

Copyright © 1980, Wyeth Laboratories. All rights reserved.

CYCLAPEN®-W

(cyclacillin)

250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

*Based on single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

See important information on facing page.

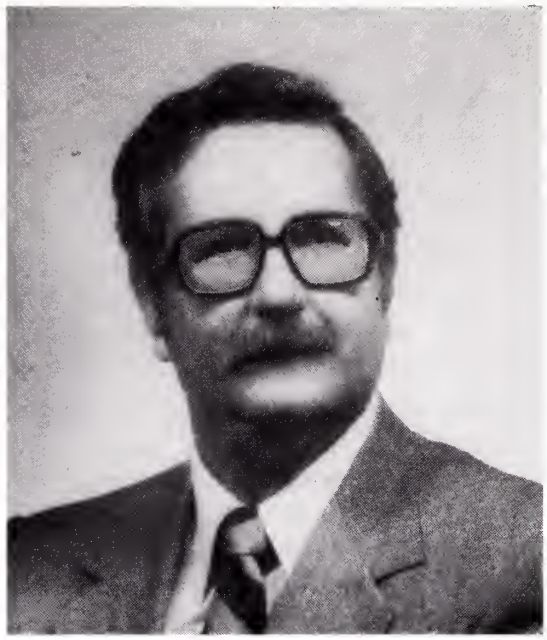
Wyeth Laboratories • Philadelphia, Pa 19101

Highlights of the 1980 KMA



KMA Officers for 1980-81 are (left to right): S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer; Charles B. Spalding, M.D., Bardstown, Vice President; Frank R. Pitzer, M.D., Hopkinsville, President; and Ballard W. Cassady, M.D., Pikeville, President-Elect.

Annual Meeting



Frank R. Pitzer, M.D.

Officers

Ballard W. Cassady, M.D., Pikeville, and Charles B. Spalding, M.D., Bardstown, are the newly elected KMA President-Elect and Vice President respectively.

The House of Delegates elected the two new officers at this year's Annual Meeting of the Kentucky Medical Association. Doctor Cassady, a surgeon at the Methodist Hospital in Pikeville, has served two terms as Trustee of the Fourteenth District of the KMA, as Vice Chairman and Chairman of the KMA Board of Trustees, and as Chairman of KMA's Budget Committee for the past 10 years. In 1978, Doctor Cassady was named Chairman of the Board and President of the newly formed Kentucky Medical Insurance Company. He is a member of the AMA, the American College of Surgeons, Kentucky Chapter, and the Pike County Medical Society.

Charles B. Spalding, M.D., Bardstown, a family practitioner, has served as Fourth District Trustee of KMA since 1977. He is a 1953 graduate of the University of Louisville School of Medicine and has taught at both U of L and U of K.

Doctor Spalding is former President of the KAFP and was named 1980 KAFP Citizen Doctor of the year. He is a member of the AMA, the Nelson County Medical Society, and a member of the Board of Trustees for the Flaget Hospital, Bardstown.

Harold D. Haller, Sr., M.D., Louisville, and Kenneth P. Crawford, M.D., Louisville, were both re-elected to two-year terms as Delegate and Alternate Delegate of the AMA, respectively. The other AMA Delegates are David B. Stevens, M.D., Lexington, and Fred C. Rainey, M.D., Elizabethtown. Alternate Delegates are Lee C. Hess, M.D., Florence, and Wally O. Montgomery, M.D., Paducah.

Dwight L. Blackburn, M.D., Berea, was re-elected as Chairman of the Board. Doctor Blackburn is a family practitioner in Berea and is past president of the Madison County Medical Society. He has been a KMA Trustee from the Eleventh District since 1975.

Earl P. Oliver, M.D., Scottsville, was elected as Vice Chairman of the KMA Board of Trustees. Doctor Oliver, a family practitioner, is serving his second term as Trustee for the Sixth District. He is Past President of the Allen County Medical Association and a member of the AMA and a Fellow of the American Academy of Family Practice.

Bennett L. Crowder, II, M.D., Hopkinsville and Peter C. Campbell, Jr., M.D., Louisville, were both reelected to three-year terms as Speaker and Vice Speaker of the House, respectively.

Newly-elected members of the KMA Board of Trustees are: Thomas Robert Taylor, M.D., Boston; Danny M. Clark, M.D., Somerset; and Charles G. Nichols, M.D., Pikeville.

President's Luncheon

Laman A. Gray, Sr., M.D., Louisville, received the Distinguished Service Award at this year's President's Luncheon, September 24.

Chairman of the KMA Awards Committee, Randolph Scheen, M.D., Louisville, presented the award and praised Doctor Gray's 40 years of outstanding medical service. "It is significant that this man is probably more recognized nationally and internationally than he is known in his own state," Doctor Scheen explained.

Doctor Gray is the author of more than 150 articles, seven books, eight films, and records and tapes. He has served as President of the Kentucky Chapter, American College of Surgeons, the Kentucky Cancer Society, the Kentucky OB-Gyn Society; the Kentucky Surgery Society and he is presently President of the Regional Cancer Center. Doctor Gray also serves as Full Professor of Surgery at the University of Louisville and the University of Kentucky Medical Schools.

Guest speaker at the President's Luncheon was Robert Hunter, M.D., President of the American Medical Association. In his presentation Doctor Hunter stressed the important impact the AMA has representing the medical profession. He emphasized the role of the AMA in speaking nationally for all medical specialty groups and pointed out that every physician is individually represented by policies originating from county and state medical societies.

Most importantly, according to Doctor Hunter, the AMA stands between the government and the medical profession to stop regulations from reaching the real target—the individual physician. The AMA operates to determine the intent and consequences of regulations—something that the individual physician cannot do alone.

House of Delegates

During the first session of the House of Delegates on September 22, Jacqueline A. Noonan, M.D., Lexington, and Ulrich F. Westphal, Ph.D., Louisville, were presented the Educational Achievement Award.

This is the second year the award has been presented. It was created to give recognition to those who have made a significant contribution in medical or medically related education in the areas of research, clinical application of medical practice and/or patient education.

Doctor Noonan, Chairman of the Department of Pediatrics at the University of Kentucky, has gained recognition in Kentucky and nationally for her expertise in the training of pediatric cardiology. She has traveled extensively to remote parts of the state for the Regional Heart Program. This program is used by physicians as a referral source for patients suspected of having heart disease. During the five year period from 1974 to 1979, more than 8,000 patients were evaluated in this rural setting by Doctor Noonan and her staff.



Robert S. Howell, M.D., gave the President's address at the first meeting of the KMA House of Delegates.



Laman A. Gray, Sr., M.D., (left) receives the Distinguished Service from Doctor Sheen. Donald W. Giffen, right, President of Blue Cross, Blue Shield and Delta Dental received the Kentucky Medical Association Award.

Ulrich F. Westphal, Ph.D., was also awarded the Educational Achievement Award for his contributions to medical education and his research in the field of steroid chemistry. He is a Professor of Biochemistry at the University of Louisville School of Medicine and has published more than 170 papers in scientific journals or books. In 1979, he was awarded the title of "Distinguished Professor" at the University of Louisville.

The meeting was preceded on Sunday, September 21, by a briefing on AMA activities from AMA President, Robert B. Hunter, M.D. Attending the briefing were members of the Board of Trustees, Delegates, County Society Secretaries and Specialty Group leaders.

Doctor Hunter reviewed a number of issues that the AMA was deeply involved in at the moment in legal and legislative areas. He noted the ever increasing involvement of government and the seeming inevitability of its usurpation of medical practice; however, the Federation of Medicine represented at the national level by AMA has been effective in stemming this tide and remains effective in its militant protection of the profession.

Other activities during the first meeting of the House of Delegates included official introduction of the reports of the KMA committees, deliberation of the resolutions and the report of the Rules Committee which advises the Speaker on the rules of protocol of the House.

The second session of the House of Delegates convened on Wednesday evening with the delegates voting on a number of major issues to establish KMA policy which included:

- Voted support for provision of all casualty insurance lines through an endorsed or captive insurance company.
- Voted to support self governance of university teaching hospitals.
- Voted for reevaluation of position in support of certification of physicians' assistants.
- Voted for further study and consideration: reimbursement of hospitals and physicians by third party carriers; the operation of the PSRO Program; and the conduct of peer review.
- Directed monitoring and evaluation of the operation of Title XVIII, Part B.
- Voted opposition to the provision of direct primary care services through intermediary health departments and called for further study with the Secretary of DHR on this issue.
- Directed a number of steps to evaluate and consider the operation of the Medicaid program and physician participation in it and called for an adjourned session of the House to reconvene on or before April 16 to consider the results of this study.
- Voted to support co-terminus membership by KMA members and elected officers on the KMA Board of Trustees and the governing boards of third party carriers.



President of the AMA, Robert B. Hunter, M.D., was the guest speaker during the President's Luncheon.



Guests at the Annual Meeting were able to visit 100 technical and scientific exhibits during intermissions of meetings and scientific sessions.



Jacqueline A. Noonan, M.D., Lexington, was presented the Educational Achievement Award during the first House of Delegates meeting on Sept. 22.



Jeffrey Hilb, M.D., Louisville, won the 3.2 mile fun-run held during the Annual Meeting.

Five physicians were elected by the House of Delegates at its final session to serve on the 1981 Nominating Committee. Committee members for 1981 are: Walter L. Cawood, M.D., Ashland, Chairman; Charles G. Nichols, M.D., Pikeville; Charles H. Nicholson, M.D., Lexington; Ben H. Taylor, M.D., Paducah; and William E. Yancey, M.D., Louisville.

Attendance

Registration for the Annual Meeting was 2,103, an increase over last year's attendance. General Scientific and Specialty Groups' sessions were well attended as were both meetings of the House of Delegates.

The 1981 KMA Annual Meeting is scheduled for September 20 through 24, at the Ramada Inn, Bluegrass Convention Center, Louisville.



2,103 people registered at this year's Annual Meeting. This was an increase from last year's attendance.



Charles Kincaid, M.D., Louisville, explains the route in a fun-run sponsored by the KMA Auxiliary.

Was Your Delegate Present?
ROLL CALL
1980 House of Delegates
KMA Annual Meeting

OFFICERS

		First Session	Second Session
Speaker	Bennett L. Crowder, II	Present	Present
Vice Speaker	Peter C. Campbell, Jr.	Present	Present
President	Robert S. Howell	Present	Present
President-Elect	Frank R. Pitzer	Present	Present
Vice-President	Richard J. Menke	Present	Present
Secretary-Treasurer	S. Randolph Scheen	Present	Present
Delegate to the AMA	David B. Stevens	Present	.....
Delegate to the AMA	Fred C. Rainey	Present	Present
Delegate to the AMA	Harold D. Haller, Sr.	Present	Present
Alternate Delegate to the AMA	Kenneth P. Crawford	Present	Present
Alternate Delegate to the AMA	Wally O. Montgomery	Present	Present
Alternate Delegate to the AMA	Lee C. Hess	Present	Present

TRUSTEES

District			
First	Wally O. Montgomery	Present	Present
Second	R. J. Phillips	Present	Present
Third	Henry R. Bell	Present	Present
Fourth	Charles B. Spalding	.....	Present
Fifth	Walter S. Coe	.....	.....
Sixth	Earl P. Oliver	Present	Present
Seventh	William P. McElwain	.....	Present
Eighth	Robert E. Smith	Present	Present
Ninth	Don R. Stephens	.....	Present
Tenth	Richard F. Hench	Present	Present
Eleventh	Dwight L. Blackburn	Present	Present
Twelfth	William T. Watkins	Present	Present
Thirteenth	Howard B. McWhorter	.....	Present
Fourteenth	Harvey A. Page	Present	Present
Fifteenth	Donald C. Barton	Present	Present

ALTERNATE TRUSTEES

District			
First	James E. Adams	.....	.....
Second	Albert H. Joslin	Present	Present
Third	Sam H. Traughber	Present	Present
Fourth	Terrell D. Mays	.....	.....
Fifth	Glenn W. Bryant	.....	.....
Sixth	L. Martin Wilson, Jr.	Present	Present
Seventh	Cecil D. Martin	Present	Present
Eighth	William R. Yates	Present	Present
Ninth	R. Kendall Brown	Present	Present
Tenth	Colby N. Cowherd	.....	Present
Eleventh	Don E. Cloys	Present	Present
Twelfth	Danny M. Clark	.....	Present
Thirteenth	Ranjit Sinha	Present	Present
Fourteenth	Jerry D. Fraim	.....	Present
Fifteenth	Emanuel H. Rader	Present	Present

PAST-PRESIDENTS

Past-President	Carl Cooper, Jr.	Present	Present
Past-President	John P. Stewart	.....	.....
Past-President	Paul J. Parks	Present	Present
Past-President	David A. Hull	.....	.....
Past-President	Hoyt D. Gardner	Present	Present

DELEGATES

FIRST DISTRICT

		First Session	Second Session
BALLARD CALLOWAY	Hal Houston	.....	.....
	Gary Marquardt	Present	Present
CARLISLE FULTON GRAVES	C. Douglas LeNeave	.....	.....
	Henry Viles	.....	.....
HICKMAN	John W. Brazell	.....	.....
LIVINGSTON	Stephen Burkhart	.....	.....
MCCRACKEN	John Kraus	Present	Present
	John Noonan	Present	Present
	R. W. Robertson	Present	.....
	W. Eugene Sloane	Present	Present
	Ben Taylor	Present	Present
MARSHALL	Keith E. Ellis	Present	Present

SECOND DISTRICT

DAVIESS	James E. Anderson	Present	.....
	James A. Baumgarten	Present	Present
	Garry Binegar	.....	Present
	Albert H. Joslin	Present	Present
	R. John Sanders	Present	Present
HANCOCK HENDERSON	Kenneth M. Eblen	.....	Present
	John McClellan	Present	Present
MCLEAN OHIO UNION WEBSTER	Hugh H. Wilhite	.....	.....
	Robert E. Norsworthy	.....	.....

THIRD DISTRICT

CALDWELL CHRISTIAN	N. H. Talley	Present	Present
	Charles A. Barlowe	Present	Present
	James F. Rozelle	Present	Present
	William C. Young	.....	.....
CRITTENDEN HOPKINS	W. R. Alexander	Present	Present
	R. K. Bachman	Present	Present
	C. R. Dodds	Present	Present
	W. H. Klampus	Present	Present
	R. W. Hodge	Present	Present
LYON MUHLENBERG	James S. Brashear	Present	Present
	Bennett L. Crowder, II	Present	Present
TODD TRIGG	Delmas M. Clardy	Present	Present

FOURTH DISTRICT

BRECKINRIDGE BULLITT GRAYSON GREEN HARDIN	W. Bruce Hamilton	Present	Present
	Victor F. Duvall	Present	Present
	Robert L. Shuffett	Present	Present
	William Carney	Present	Present
	Wreno M. Hall	Present	Present
HART LARUE MARION MEADE NELSON TAYLOR WASHINGTON	Clem Nichols	Present	Present
	John W. Ratliff	Present	Present
	Michael C. Hess	Present	Present
	Eugene H. Shively	Present	Present

FIFTH DISTRICT

JEFFERSON	Berel L. Abrams	Present	Present
	Hugh P. Adkins	Present	Present
	Richard Allen	Present	Present
	Robert E. Arnold	.....	Present
	Harold W. Blevins	.....	Present
	Charles M. Brohm	Present	Present
	W. Cooper Buschemeyer, Jr.	.....	Present
	E. Dean Canan	.....	Present

	James Childers	Present	Present
	Ronald N. Collier	.....	Present
	Samuel L. Cooper	.....	Present
	Paul Cronen, Jr.	Present	Present
	Mac De Camp	Present	.....
	Thomas C. Dedman, III	Present	Present
	Donnie O. Demunbrun	Present	Present
	Bob M. DeWeese	.....	Present
	Daniel P. Garcia	.....	Present
	Robert R. Goodin	Present	Present
	Larry P. Griffin	Present	Present
	John J. Guarnaschelli	.....	Present
	Claude C. Hazlett	.....	.....
	Walter I. Hume, Jr.	.....	Present
	Arthur T. Hurst, Jr.	.....	Present
	Jerome P. Lacy	.....	Present
	Theodore N. Lynch	.....	Present
	H. Burl Mack	Present	Present
	Joseph C. Marshall	.....	.....
	Edward N. Maxwell	Present	Present
	Mike McCall	Present	Present
	Roy J. Meckler	.....	Present
	James P. Moss	.....	Present
	Robert A. Noel	Present	Present
	Robert L. Nold, Sr.	Present	Present
	Lynn L. Ogden	Present	Present
	C. Kenneth Peters	Present	Present
	C. Ray Potts	.....	.....
	Henry W. Post	Present	Present
	Raymond G. Shea	.....	.....
	Judah L. Skolnick	Present	Present
	Gerald D. Verdi	.....	Present
	Tom Watson	Present	Present
	Sam D. Weakley	Present	Present
	A. Franklin White	Present	Present
	William B. Worthington	Present	.....
	William E. Yancey	Present	Present
	Walter H. Zukof	.....	Present

SIXTH DISTRICT

ADAIR	M. C. Loy	Present	.....
ALLEN	Earl P. Oliver	Present	Present
BARREN	Howard L. Edgin	Present	Present
	Daryl P. Harvey	Present	Present
BUTLER	Richard T. Wan	.....	Present
CUMBERLAND	Sam Rice	.....	.....
EDMONSON			
LOGAN	C. V. Dodson	Present	Present
METCALFE			
MONROE	James E. Carter	Present	.....
SIMPSON	J. Michael Pulliam	Present	Present
WARREN	John Downing	Present	Present
	Russell Rothrock	Present	Present
	Nelson B. Rue	Present	Present

SEVENTH DISTRICT

ANDERSON	Boyd Caudill	.....	.....
CARROLL	Cecil D. Martin	Present	Present
FRANKLIN	Harry Cowherd	.....	.....
	David Douglas	Present	Present
	Willett H. Rush, Jr.	.....	Present
GALLATIN			
GRANT	Darl B. Shipp	.....	.....
HENRY	Robert L. Houston, Jr.	Present	Present
OLDHAM	Robert Wellman	Present	Present
OWEN			
SHELBY	Willis P. McKee	Present	Present
SPENCER	William K. Skaggs	.....	.....
TRIMBLE	Carl Cooper, Jr.	Present	Present

EIGHTH DISTRICT

BOONE	Richard Levin	.....	Present
	Harold Markesbury	Present	Present
CAMPBELL-KENTON	Gordon W. Air	Present	Present
	Richard Allnutt	Present	Present
	Carl John Brueggmann	.....	.....
	Frank Garamy, Jr.	Present	Present
	Thomas Heavern, Jr.	Present	Present
	Howard A. Herringer, Jr.	Present	Present
	William B. Monnig	Present	Present
	Fred A. Stine	Present	Present
	Raymond J. Timmerman	Present	Present

NINTH DISTRICT

BATH			
BOURBON	A. V. Echiverri	.....	.....
BRACKEN	Milton Brindley	.....	.....
FLEMING	Glenn R. Womack	Present	.....
HARRISON	A. C. Wright	Present	Present
MASON	Claude Cummins	Present	.....
NICHOLAS			
PENDLETON	Robert L. McKenney	.....	Present
ROBERTSON			
SCOTT	Robert Kendall Brown	Present	Present

TENTH DISTRICT

FAYETTE	M. Cary Blaydes	Present	Present
	P.P. Bosomworth	Present	Present
	Walter R. Brewer	.....	Present
	D. Kay Clawson	Present	Present
	W. L. Dillon	Present	Present
	Glenn U. Dorroh	Present	Present
	Harold T. Faulconer	.....	Present
	Ward O. Griffen	.....	Present
	Allen E. Grimes, Jr.	.....	Present
	Ardis Hoven	Present	Present
	Thomas M. Jarboe	Present	Present
	V. R. Jenkins	Present	Present
	Edgar McGhee	Present	Present
FAYETTE	Franklin B. Moosnick	Present	Present
	Charles H. Nicholson	Present	Present
	Edwin J. Nighbert	Present	.....
	Preston Nunnelly	Present	.....
	John D. Perrine	Present	Present
	E. C. Seeley	.....	Present
	John E. Trevey	Present	Present
JESSAMINE	Phyllis J. Corbitt	.....	Present
WOODFORD	Norman Fisher	Present	Present

ELEVENTH DISTRICT

CLARK			
ESTILL			
JACKSON	Phillip Curd	.....	.....
LEE	Arnold Taulbee	.....	.....
MADISON	Don E. Cloys	Present	Present
	Linda S. Fagan	Present	Present
MENIFEE			
MONTGOMERY	Harold Gillispie	Present	Present
OWSLEY	Mildred B. Gabbard	.....	.....
POWELL			
WOLFE	Paul F. Maddox	.....	Present

TWELFTH DISTRICT

BOYLE	Elmer H. Jackson	Present	Present
	David C. Liebschutz	Present	Present
CASEY	Lewis E. Wesley	Present	Present
CLINTON	Floyd B. Hay	Present	Present
GARRARD	Paul J. Sides	.....	Present
LINCOLN	Charles C. Crase	.....	Present
MCCREARY	Jerold Burgess	.....	.....
MERCER	Bacon R. Moore, III	Present	Present
PULASKI	Veryl Frye	Present	Present
	Richard D. Weddle	Present	Present
ROCKCASTLE	George W. Griffith	.....	.....
RUSSELL	James E. Monin	.....	.....
WAYNE	William M. Selvidge	Present	Present

THIRTEENTH DISTRICT

BOYD	Walter L. Cawood	Present	Present
	John W. Harrison	.....	.....
	Wayne Franz	.....	.....
	J. E. Moore	.....	.....
CARTER	W. H. Matthew	Present	Present
ELLIOTT	Brown L. Adkins	.....	.....
GREENUP	John Jones	Present	Present
LAWRENCE			
LEWIS	Jack Silver	Present	Present
MORGAN	Billy Joe Stamper	.....	.....
ROWAN	David L. Harris	.....	.....
	Ranjit Sinha	Present	Present

	FOURTEENTH DISTRICT		
BREATHITT	Robert E. Cornett	.....	.....
FLOYD	Roger D. Akers	Present	Present
	Charles Hieronymous, Jr.	Present	Present
JOHNSON	Joseph H. Rapier, Jr.	Present	Present
KNOTT	Denzil G. Barker	.....	.....
LETCHER	Arthur Nash	Present	Present
MAGOFFIN			
MARTIN	Raymond D. Wells	.....	.....
PERRY	Donnie Spencer	.....	.....
PIKE	Ron Hall	Present	Present
	Charles G. Nichols	Present	Present
	FIFTEENTH DISTRICT		
BELL	Talmadge Hays	.....	.....
	Charles Moore	Present	Present
CLAY	W. E. Becknell	.....	.....
HARLAN	Milo Schosser	Present	Present
	Paul M. Walstad	Present	Present
KNOX	Rogelio A. Acosta	Present	.....
LAUREL	William D. Pratt	Present	Present
LESLIE	Anne A. Wasson	Present	Present
WHITLEY	C. William Briscoe	.....	Present
	R. D. Pitman	Present	Present

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, September 22 and 24.



The Daviess County Medical Society held its First Annual Horace Harrison Memorial Lecture, on June 8 of this year, at the Executive Inn in Owensboro. Four of the guests who attended are, from left to right: John Sergent, M.D., rheumatologist and faculty member of Vanderbilt University; Mrs. Sue Pfister, Dr. Harrison's daughter; Mrs. Horace Harrison and James A. Baumgarten, M.D., Director of CME for the Daviess County Medical Society.

How's Your Cost Consciousness?

NOVEMBER—Physicians should organize their office staffs to allow for timely and efficient flow of patients, as well as information and reports concerning those patients, so that out-patient diagnostic services can be accomplished without undue delay.

Efficiently run offices will allow physicians better capability for seeing patients when they are sick, instead of the need for an appointment with unreasonable delay. Such prompt attention would prevent otherwise unnecessary use of expensive emergency room facilities.

Physicians should inform patients where, other than emergency rooms, to obtain care outside regular office hours.

Headquarter's Activity

NOVEMBER

4	Election Day
5	KMA Executive Committee, Louisville
6	Speakers Training, Executive West, Louisville
11	Journal Editors, Louisville
19	RKMSF Executive Committee, Louisville
20	CME Committee, Louisville
20	Board of Medical Licensure, Louisville
27-28	Thanksgiving, Office Closed

DECEMBER

3-4	KMA Board of Trustees, Louisville
7-10	AMA Interim Meeting, San Francisco
9	Journal Editors, Louisville
25	Christmas, Office Closed

U of L Medical Alumni Association Calendar of Events

November 16-18	**Southern Medical Association Reception and Hospitality Suite Hilton Hotel, New Orleans, LA**
November 19, 20, 24-26	**Medical Alumni Telethon**

Established 1865
Buschemeyer's

WE BUY ALL MEDICAL X-RAY FILM
CALL FOR CURRENT PRICES
KY TOLL FREE 800-292-5991
NATIONWIDE 800-626-4555
515 RIVER CITY MALL
LOUISVILLE, KENTUCKY 40202
PHONE 587-7034 or 587-7342



April 1-2, 1981

Without the innovators, there could be no imitators

Librium® C (chlordiazepoxide HCl) Roche
Premarin (conjugated estrogens) Ayerst Laboratories
HydroDiuril (hydrochlorothiazide) Merck Sharp & Dohme
Lanoxin (digoxin) Burroughs Wellcome Co.
Lasix (furosemide) Hoechst-Roussel
Meticorten (prednisone) Schering Corporation
Anturane (sulfinpyrazone) Ciba-Geigy Corporation
Erythrocin (erythromycin) Abbott Laboratories

Research and development, the life blood of pharmacotherapeutic progress

The drugs that have contributed so much to modern medicine were the product of long years of expensive research. And tomorrow's drugs depend upon continuation of the research and development going on right now. The cost of that research is one of the things reflected in the price of a brand-name drug. The substitution of a cheaper "generic" drug for a brand-name product may save the patient some money at the prescription counter. However, it threatens the very foundations of modern pharmaceutical research.

The hidden cost of "cheaper" generic drugs

Much of the enthusiasm for generic prescribing is based on a shortsighted view that fails to take such long-term issues into account. While cost is an important factor, pharmaceutical research, the quality of medicine, and future generations of patients must all be considered.

Settling for cheaper drugs today could deprive you and your patients of the drugs they may need tomorrow.

ROCHE®

To encourage imitation is to discourage innovation



Acute pain is no laughing matter.

The first prescription for the first days of acute pain

Empirin® c Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). C III

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin c Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

C III

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has th potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administra tion of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of othe oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Con trolled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for th performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug shoul be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, genera anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomi tantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, th dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potentia benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressent effects of narcotics and their capacity t elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions o a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure th clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis o clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasa polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly o debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostati hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients an some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsi ness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspir Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administr tion of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain tha patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

Wellcome

Burroughs Wellcome
Research Triangle P
North Carolina 277

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

I was a delegate from Jefferson County to the Kentucky Medical Association during the recent meeting. I woke up once just as Doctor Grady Stumbo was announcing that he was now in the highest office ever attained by a physician in the state of Kentucky. (At least I think that's what he said. It happened pretty fast.) Doctor Stumbo was wrong. Doctor Luke Pryor Blackburn was a Fayette County physician who was governor of Kentucky 1879-1882. A book about his life was published this year by the University Press of Kentucky.

Robert E. Arnold, M.D.
Louisville, KY

To the Editor:

The article on Floridation in Rural Kentucky (July) which I have just seen prompts me to draw your attention to a method of distributing fluoride to schools which seems particularly suitable for the conditions you describe. It is in accord with the recommendation by the World Health Organisation to encourage further research in the use of milk as a vehicle for it. Where milk is not acceptable it can be substituted by fruit juice.

Briefly: A daily drink of milk (200 ml.) containing 1 mg. of fluoride, calculated over 365 days to cover holidays, is given to the children up to 14 yers. The advantage milk has over fruit juice is its content of protein, calcium and vitamins, which contribute in a general way to a good diet.

The mixing can be done by any processing dairy. The Charity which has evolved the milk scheme has also developed equipment which can process 500-250,000 200 mls. per hour and this is particularly suitable for trials in areas where there is no piped water. It has been adopted in eight countries and interest increases all the time.

The Borrow Dental Milk Foundation has sponsored a number of researches and trials for several years using this method which are showing satisfactory results.

Particulars are available from its headquarters at Padnell—Grange, Cowplain, Portsmouth, Hants., England.

Phyllis Deakin
Hants, England

Stephen Z. Smith, M.D.
Assistant Scientific Editor

Breast Self-Examination

Albert R. Milan, M.D., Liberty Publishing Company, 1980, 125 pages

Despite the dramatic and commercial advertising displayed on the front cover, this inexpensive paperback teaches breast self-examination admirably.

The writing is geared to the educated reader. Detailed illustrations, fairly complex anatomy and a text expecting some medical sophistication remove this book from the less knowledgeable reader. I suspect that the audience for this book has dabbled in breast examination before, but the printed word will legitimize their attempts or correct their errors.

The talented Doctor Milan has illustrated his self-examination book. These sketches ease the effort of learning. Generous use and reference to visual examples reinforces the author's emphasis on visual awareness and examination of the breast. Tactile expertise has to be experienced and Doctor Milan kindly encourages frequent palpation of breat tissue for the sake of learning the normal from changed tissue.

The finale is a crystallization in outline form as well as a miniaturization of the visual exhibits of the books contents. The summary is excellent and having read the text, these succinct last few pages reinforce Doctor Milan's teachings.

I accept the necessity of an explicit cover and the use of catchy phrases. Commercial requirements were considered in the creation of this book, rather than academic design. Nevertheless, in the hands of women and men concerned with the health of women, this paperback is worth its modest price and will surely enhance earlier recognition of breast tissue pathology.

Microbial Diseases

Compiled by Carl W. May, Editor, William Kaufmann, Inc., 1980, 322 pages

A new kid on the block. Like anything novel, we have to accomodate to its presence and study its fit into our world. Pronouncing itself the 1980 edition and bearing a repertoire of "notes, reports, summaries and trends," this compilation sounds like a naive approach to a very dynamic subject. Nevertheless, in these 320 pages, a filtered version of the years Morbidity and Mortality Weekly Report (MMWR) is presented in a well organized and clearly printed compendium. Precise reproductions of these reports grouped by their parent micro-organism are a handy way to review a specific field. Cross-referencing is facilitated by a comprehensive index.

This book is not a didactic text. Yet with each report comes sufficient background material to educate the reader. Handy summaries of current dogma flavor the basic grist of data.

Despite the threat of government redundancy coming from the C.D.C., these MMWR reports are succinct and easily consumed pieces. Editorial liberty is taken to orient the reader where the selection of reports was developed and why others were omitted.

The book is a bargain for the reviewer. Well printed and error free, it is a creditable beginning to a hopefully venerable succession of editions.

WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® (IV) ©

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diezepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication.

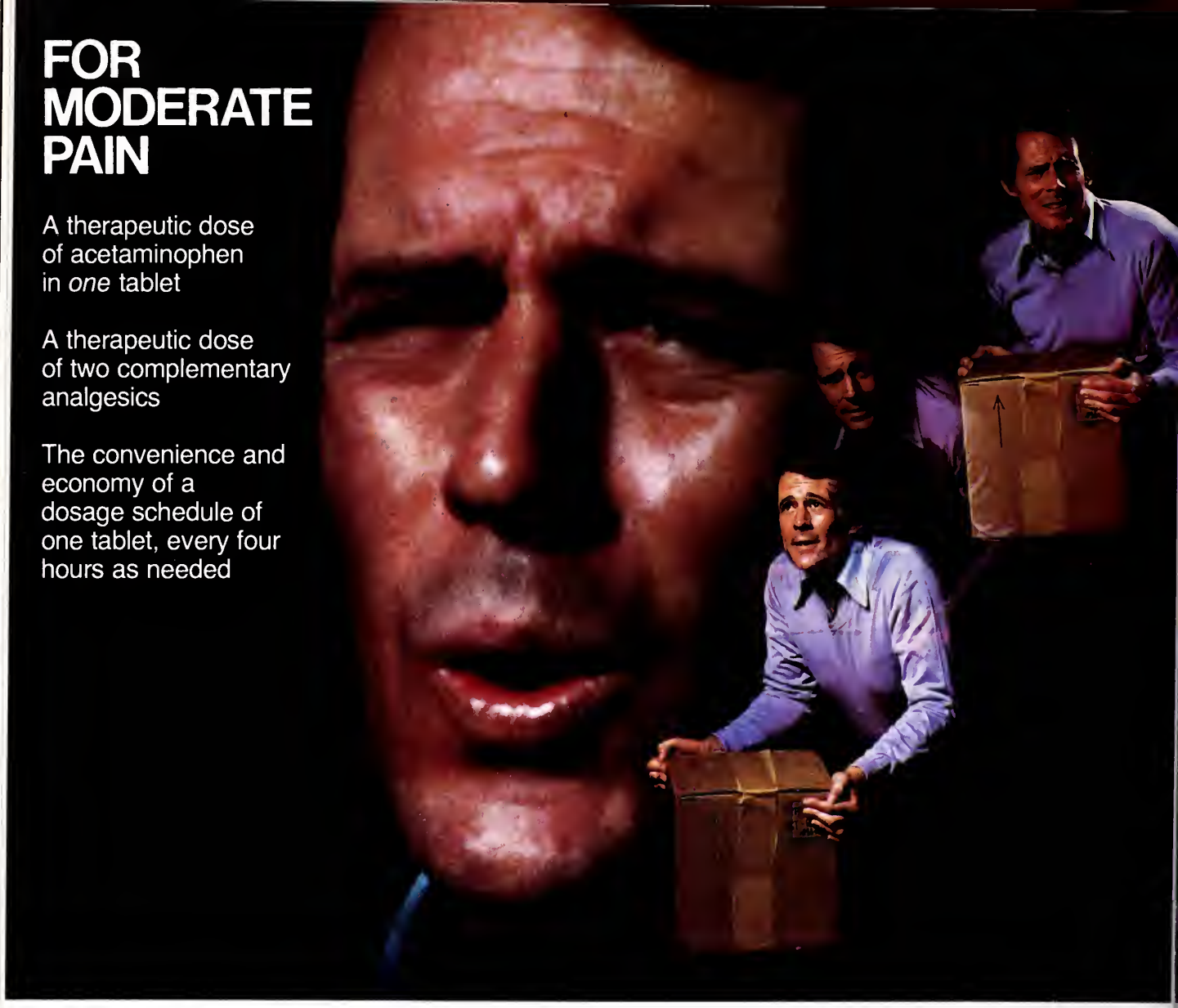
Wyeth Laboratories
Philadelphia, Pa 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® C IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosege**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e g driving a car or operating machinery Patients should be cautioned accordingly
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine
MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists, naloxone, nalorphine, and levallorphen, are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepetic enzyme determinations are also recommended

Copyright © 1980, Wyeth Laboratories
All rights reserved.

Wyeth Laboratories
Philadelphia, Pa. 19101

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Cutaneous Blastomycosis

Antimicrobial Therapy, Case #22: Recurrent Furunculosis

Neonatal Sepsis

December 1980
Volume 78
Number 12

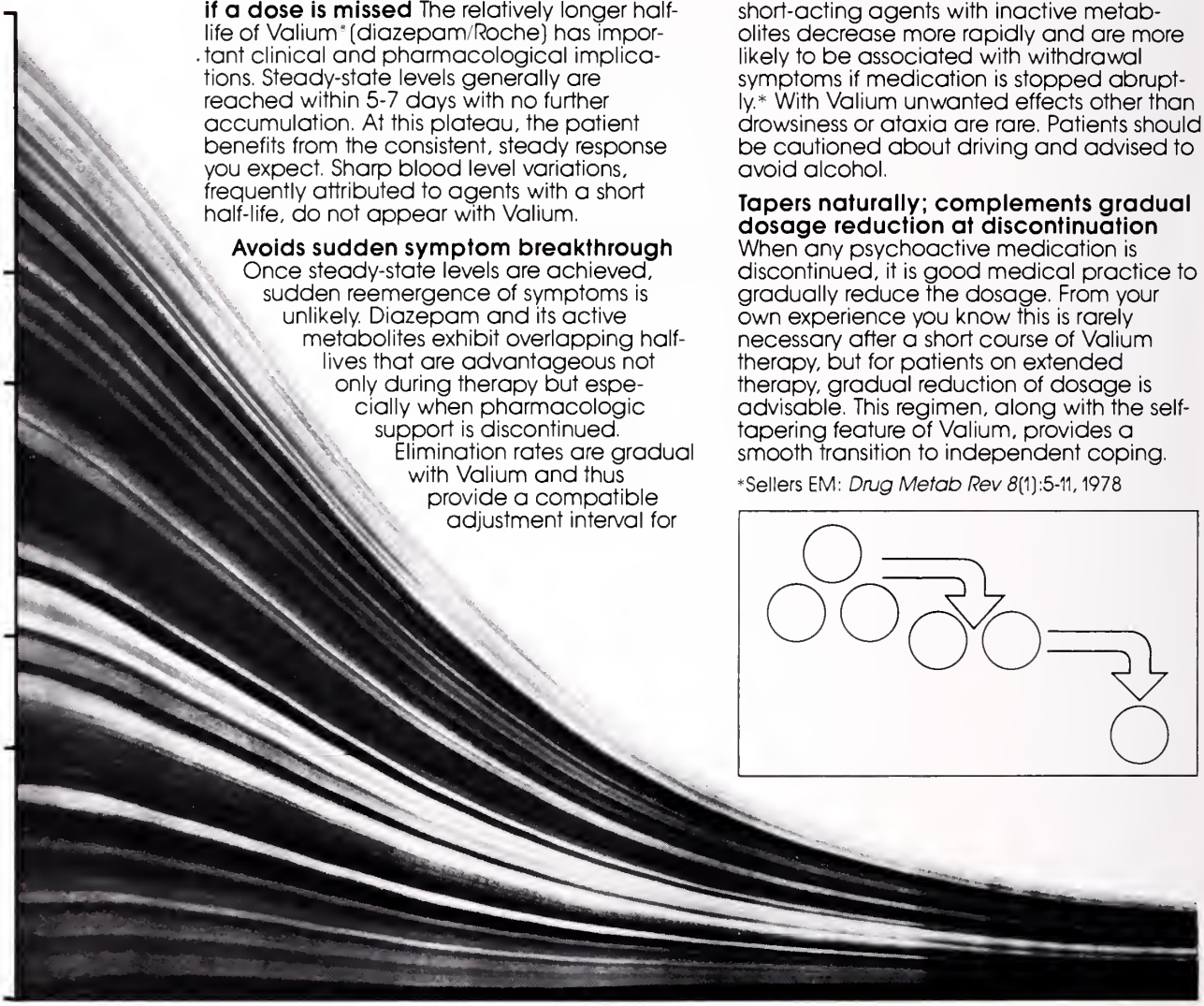
MDS

The Journal Of The Kentucky Medical Association

LIBRARY OF THE COLLEGE OF PHYSICIANS
1981

half-life

Just one built-in advantage



Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

in the management of symptoms of anxiety

Valium® (IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

ROCHE®

Valium®IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Postgraduate Opportunities

DECEMBER

5-6	Nephrology and Urology Seminar, Hyatt Regency, Louisville**
10	Pediatric Practice Problems as Related to Child Psychiatry, Norton Children's Hospitals, Louisville
10-12	Neurology for the Non-Neurologist, Sheraton Plaza Hotel, Chicago, Ill.

FEBRUARY

5-7	Fiberoptic Bronchoscopy: A Workshop, Hyatt Regency Hotel, Lexington
11	Ethics, Confidentiality and Child Abuse, Norton Children's Hospitals, Louisville
15-20	12th Family Medicine Review-Session I, Hyatt Regency Hotel, Lexington
18	Sexually Abused Children: Setting and Sociodemographic Characteristics, Norton Children's Hospitals, Louisville

MARCH

6-8	Advanced Cardiac Life Support, Provider/Instructor Course, Health Sciences Center, Louisville**
9-11	Nutrition in Pregnancy, Health Sciences Center, Louisville**
27-28	Nutrition and Cancer Update, Health Sciences Center, Louisville**
30-31	Medical Aspects of Sports Symposium, Hyatt Regency Hotel, Lexington

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329*
**Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161*

How's Your Cost Consciousness?

DECEMBER—Carefully evaluate all "routine orders" to delete cost consuming, unnecessary procedures. Specifically, order a cancellation of routine orders when they are unnecessary for the given patient.

Review medications daily to be sure that unnecessary medications are not being used. This will avoid the expense of administration of the medications as well as potential side effects and complications because of their use. Such complications and side effects, naturally, prolong hospitalization.

JANUARY IS THE MONTH TO SIGN UP.



During January you and your employees can join the KMA endorsed Group Health Care Program.

All member physicians and their employees are eligible for this special Kentucky Medical Association Program. Benefits include comprehensive coverage for hospitalization, surgical-medical expenses and a $250,000 Major Medical program.

If your office has this Special Group program, present employees not covered by your program may join during January. New employees may enroll within 60 days after they become eligible.

For more information, contact the Enrollment Department:
9901 Linn Station Road
Louisville, KY 40223
(502) 423-2011

Blue Cross
Blue Shield
of Kentucky

® Reg. Mark Blue Cross Assn. ® National Association of Blue Shield Plans

The Journal Of The Kentucky Medical Association

USPS 280-700

Volume 78 • December 1980

Issued Monthly Under the Direction of the Board of Trustees

SCIENTIFIC ARTICLES

Cutaneous Blastomycosis, An Unusual Presentation
James E. Turner, Ph.D., Steven J. Hodge, M.D. and Gabriel G. Gruber, M.D. 719

Clinical Approach to the Choice of Antimicrobial Therapy, Case #22: Recurrent Furunculosis
Michael S. Saag, M.D., Martin J. Raff, M.D. and Julio C. Melo, M.D. 722

Recognition and Management of Neonatal Sepsis
Carolyn J. Forgey, M.D. and David H. Adamkin, M.D. 726

Avoiding the Pitfalls in Early Management of Cervical Spinal Cord Injury (Grand Rounds)
Byron Young, M.D., Phillip A. Tibbs, M.D. and James R. Bean, M.D. 731

EDITORIAL

JPM 738
A Man for all Seasons 739

SPECIAL FEATURES

Deceased Kentucky Physicians, 1980 740
Peom—Alfred, Lord Tennyson 741
Digest of Proceedings, 1980 House of Delegates 755
Constitution and Bylaws 799
KMA Committees, 1980-81 813
Index to Volume 78, Journal of KMA 818

ASSOCIATIONAL NEWS

Synergy in Leadership, April 1-2, 1980 749
KMA Sponsors Second Annual Physician Recruitment Fair 751
KMA Provides Placement Service to Physicians, Communities ... 752

REGULAR NEWS

Postgraduate Opportunities . 707
Cost Consciousness 707
President's Page 713
CME 737
Book Reviews 745
Did You Know? 750
Headquarters Activity 750
Members in the News 753

Published at 3532 Ephraim McDowell Drive, Louisville, Ky. 40205
Phone (Area Code 502) 459-9790

Subscriptions $15
(Members $7.50)
Single Copy $1.50

Second-class postage paid at Louisville, Kentucky. Acceptance for mailing at special rates postage provided in Section 1103, act of Oct. 3, 1917, authorized May 25, 1920.

Postmaster send change of address to Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205

• EDITOR
A. Evan Overstreet, M.D

• ASSISTANT EDITORS
Milton F. Miller, M.D.
James P. Moss, M.D.
G. Randolph Schrodt, M.D.
David L. Stewart, M.D.

• DEPARTMENTAL EDITORS
Paul C. Grider, Jr., M.D., Scientific
Stephen Z. Smith, M.D., Assistant Scientific

• EXECUTIVE EDITOR
Robert G. Cox

• ASSOCIATE EXECUTIVE EDITOR
Joseph A. Witherington, Jr.

• MANAGING EDITOR
Donna M. Young

• REGIONAL EDITORS
Allen E. Grimes, Jr., M.D., Lexington
William W. Hall, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights

BOARD OF TRUSTEES—1980-1981

Officers

President ..... FRANK R. PITZER
Jennie Stuart Memorial Hospital, Hopkinsville 42240—502/886-5221 1981

President-Elect ..... BALLARD W. CASSADY
P. O. Box 2469, Pikeville 41501—606/437-6698 1981

Immediate Past President ..... ROBERT S. HOWELL
Jewish Hospital, 217 East Chestnut Street, Louisville 40202—502/587-4460 ... 1981

Vice President ..... CHARLES B. SPALDING
201 South Fifth Street, Bardstown 40004—502/348-5968 1981

Secretary-Treasurer ..... S. RANDOLPH SCHEEN
205 Baptist East Doctors Building, 3950 Kresge Way,
Louisville 40207—502/896-8803 1981

Speaker, House of Delegates ..... BENNETT L. CROWDER, II
607 Hammond Plaza, Hopkinsville 42240—502/886-0124 1983

Vice Speaker, House of Delegates ... PETER C. CAMPBELL, JR.
Suite 400-224 East Broadway, Louisville 40202—502/583-9749 1983

Chairman, Board of Trustees ..... DWIGHT L. BLACKBURN
P. O. Box 406, Berea 40403—606/986-8452 1981

Vice Chairman ..... EARL P. OLIVER
217 West Main Street, Scottsville 42164—502/237-3144 1981

Delegates to the AMA

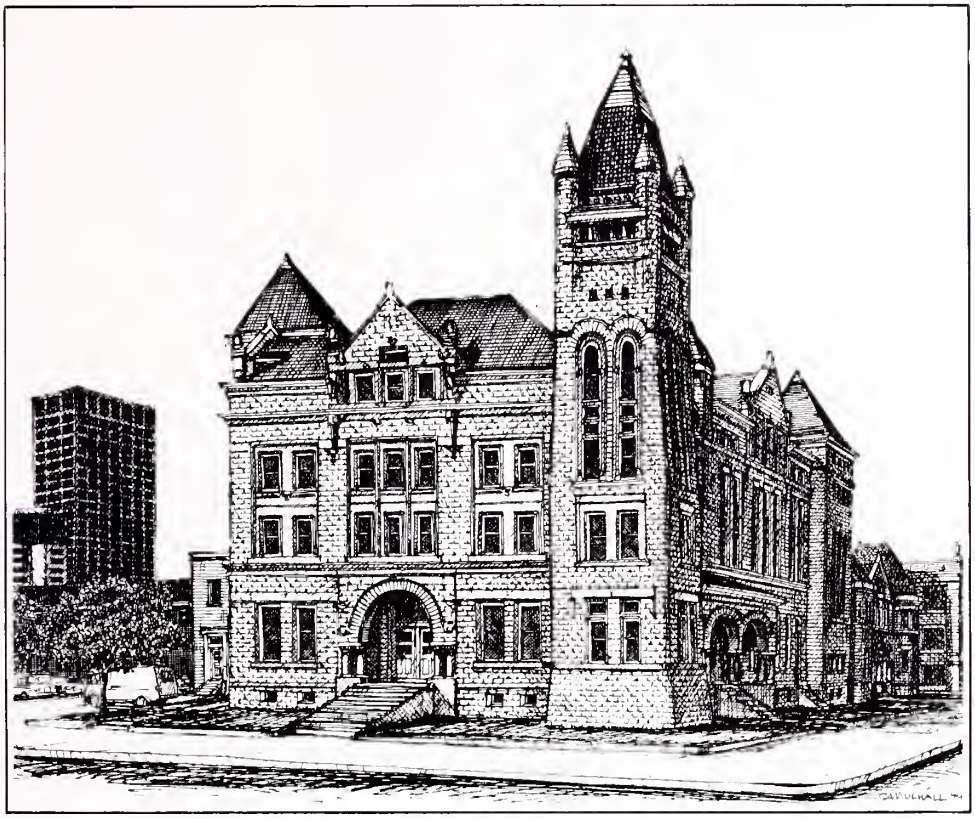
DAVID B. STEVENS, Shriners Hospital, 1900 Richmond Road, Lexington 40502—606/266-2101 1981
LEE C. HESS, 7211 U.S. 42, Florence 41042—606/371-1153 1981
FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701—502/765-4147 1981
WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1981
HAROLD D. HALLER, SR., 3828 Bardstown Road, Louisville 40218—502/459-4900 1982
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217—502/456-2180 1982

Trustees

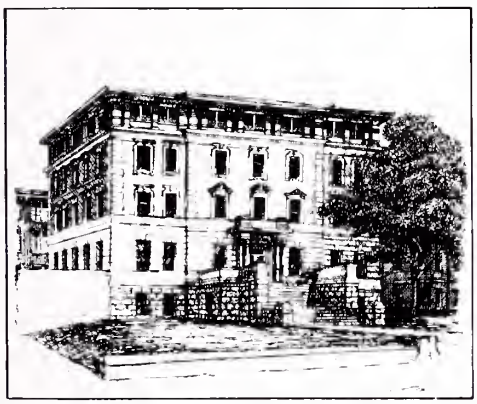
1st ..... WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001—502/443-5371 1983
2nd ..... R. J. PHILLIPS, 1001 Center Street, Owensboro 42301—502/684-5102 1982
3rd ..... HENRY R. BELL, East Main Street, Elkton 42220—502/265-2574 1983
4th ..... T. ROBERT TAYLOR, M.D., Twin Rivers Farm, Rt. 1, Boston 40107—502/769-5551 1983
5th ..... WALTER S. COE, 207 Baptist East Doctor's Bldg., 3950 Kresge Way, Louisville 40207—502/897-7107 1981
6th ..... EARL P. OLIVER, 217 West Main Street, Scottsville 42164—502/237-3144 1981
7th ..... WILLIAM P. McELWAIN, 321 South Main Street, Lawrenceburg 40342—502/223-0560 1982
8th ..... ROBERT E. SMITH, One West 43rd Street, Covington 41015—606/431-3748 1981
9th ..... DON R. STEPHENS, 437 East Pleasant, Cynthiana, 41031—606/234-4494 1982
10th ..... RICHARD F. HENCH, 2370 Nicholasville Road, Lexington 40503—606/277-6145 1982
11th ..... DWIGHT L. BLACKBURN, P.O. Box 406, Berea 40403—606/986-8452 1981
12th ..... DANNY M. CLARK, 401 Bogle Street, Somerset 42501—606/679-4396 1983
13th ..... HOWARD B. McWHORTER, 1200 Bath Avenue, Ashland 41101—606/325-2685 1982
14th ..... CHARLES G. NICHOLS, Professional Building 200, Pikeville 41501—606/432-0191 1983
15th ..... DONALD C. BARTON, Doctors' Park, Corbin 40701—606/528-2124 1981

DECEMBER BUYERS GUIDE FOR JOURNAL OF KMA

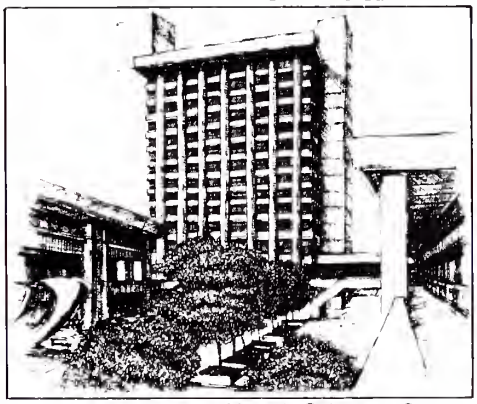
Blue Cross & Blue Shield & Delta Dental of KY 708
Boehringer Ingelheim Ltd. 810, 811, 812
Boots Pharmaceuticals 715, 716, 717, 718
Burroughs Wellcome Company 744
Buschmeyer's 754
Campbell Laboratories, Inc. 754
Classified 754
General Leasing Corporation 746
Impressions 711
Insurance Corporation of America 712
Kentucky Medical Insurance Corporation 730
A. P. Lee Agency, Inc. 714
Eli Lilly and Company 736
Medical Protective Company 750
Roche Laboratories 706, 707, 742, 809, 823, 824
Smith, Kline & French 743
Wyeth Laboratories 746, 747, 821, 822



Old Medical School



Old General



Health Sciences Center

impressions

The prints exhibited on this page were lithographed from original sketches by Gene A. Mulhall. Mr. Mulhall is the Art Coordinator for the University of Louisville Health Sciences Center. Each sketch has been reproduced in a very limited edition of five hundred by Beechmont Press of Louisville. Prints of Jewish and Norton/Children's Hospitals are also available. Every print is hand numbered and signed.

Actual sheet size of each print is 18" x 20". Image area measures 12 3/8" x 15". For immediate delivery of reproductions please clip and mail order form, with payment, to:

Impressions
2211 Steeplechase Drive
Louisville, Kentucky 40299

name (please print)

address

city

state and zip code

_____ Old Medical School
_____ Nortons/Children
_____ Jewish
_____ Old General
_____ Health Sciences Center

Individual print . . . . . $ 40.00
All five prints $175.00



SOME MALPRACTICE INSURANCE POLICIES SETTLE FOR JUST ANYBODY.

Today, all too many people are finding it easy to sue. And unfortunately, all too many insurance companies are finding it easier on themselves to settle. Quickly and out of court. Little thought is given to defending your reputation.

In fact, your insurance company may not even give you an option to fight a claim. Or if you do have that option, you can be hit with a costly penalty for going to court.

And there are other ways your insurance company may not stand behind you. For instance, chances are to save costs and time your company will use a claims adjuster to handle your case. Not a lawyer.

It's a different story at Insurance Corporation of America. ICA is a doctor and attorney owned company working hard for doctors. We know the strong coverage and knowledgeable service physicians need from their liability insurance. And because we specialize in this one field, we can offer a superior policy at a realistic premium. Premiums based on actual costs in your state.

Don't settle for just any insurance. Get a policy that really stands behind you. Contact: Insurance Corporation of America, ICA Building, 2205 Montrose, Houston, Texas 77006. 713-526-4863. Outside Texas phone 1-800-231-2615.

ICA INSURANCE CORPORATION OF AMERICA

MALPRACTICE INSURANCE IS BETTER TODAY. BECAUSE OF ICA.



Appropriateness Review: A New Regulatory Tool?

THE long delayed and much discussed appropriateness review process mandated by the National Health Planning Act is shortly to become a reality. The State Health Planning Agencies have been directed to begin appropriateness review. Certificate of Need and Appropriateness Review both assess the status of current health services; each process has a different purpose. The Certificate of Need process is an assessment of the need for new health services, major medical equipment, or construction and is therefore a regulatory tool to control health service expansion. Appropriateness review, however, assesses now existing institutional health services compared with certain pre-established criteria and standards and is a "planning function." Planning agencies will review particular services that are offered by all hospitals, rehabilitation patient facilities, nursing homes, and home health services in an area. In making assessments and the appropriateness review process, planning agencies are obliged to use existing data sources to the maximum extent possible and must limit data collection to that which is reasonably needed. The process will establish the minimum parameters by which planning agencies are to judge the appropriateness of reviewable services. Need, accessibility, availability, financial viability, cost effectiveness and quality are to be considered in an appropriateness review.

Obvious differences in interpretation and conflicts about the purpose of appropriateness review will arise. While there is no federal law that mandates sanctions for a service that is found inappropriate, it is feared that planning agencies may and/or will attempt to link appropriateness review to Certificate of Need activities. Previous health planning agency activities have focused on revealing the need for new services, however, appropriateness review procedures will evaluate existing institutional health services. This new planning function represents a more comprehensive evaluation of health services. Although no explicit sanctions have been legislated under appropriateness review procedures, state regulatory agencies and others such as third party reimbursement agents (for example, Medicaid and Blue Cross) may attempt to link appropriateness review findings to their decisions.

Thus, a new level of bureaucracy is emerging with an all encompassing planning and regulatory potential. This new "health planning-regulatory" procedure may well be the most significant of all plans yet thrust on the health care industry. Before such an all encompassing program is instituted in Kentucky, a fair and complete evaluation is needed. There needs to be a moratorium placed on regulatory and planning procedures until the full impact and threat can be evaluated. Hopefully, during the proposed moratorium, the new conservative Congress and Administrative Branch of government can alleviate, modify or obliterate the current restrictive and controlled techniques imposed on the health care industry by the last decade of liberalism.

It is imperative that physicians inform government of their concerns and desires in regard to the health planning process.

KMA will continue to lead and direct its membership in their fight against socialized control of health care.

Frank R. Pitzer, M.D.
KMA President

Best Wishes For The Holiday Season!

Time changes many things. When you're in a business like ours, you have a lot of policyholders; but through the years you find that those same people are also your friends.

Thanks for your continued confidence!

Bud Ernst Judy Parker

KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM

E. W. ERNST, JR.
PRESIDENT

631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939


COUGH
COUGH
COUGH

For Sneezing and Nasal Congestion



RU-TUSS® TABLETS

Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

- Vasoconstrictor, antihistaminic actions
- Rapid and prolonged relief of nasal and sinus congestion
- Convenient b.i.d. dosage

Boots Pharmaceuticals,
Pioneers in Medic

For Coughing With Nasal and Bronchial Congestion



RU-TUSS® EXPECTORANT

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

- Vasoconstrictor, antihistaminic, expectorant actions with codeine
- Rapid relief of upper respiratory congestion and cough
- Good tasting

eveport, Louisiana 71106.
the Family

SNEEZE

RU-TUSS® TABLETS

DESCRIPTION

Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

COUGH

RU-TUSS® EXPECTORAN

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	3
Phenylpropanolamine Hydrochloride	2
Pheniramine Maleate	2
Pyrilamine Maleate	2
Ammonium Chloride	20
Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic rel upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, allergic rhinitis. Also, for the temporary relief of symptoms associated with hay f allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an hypertensive or antidepressant drug containing a monoamine oxidase inhibit contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial as and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the pc should be warned of the potential that this drug may be habit forming. Ru-Tuss Ex torant may cause drowsiness. Patients should be warned of the possible additive e caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquili

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor ve or operating dangerous machinery (See Warnings). Caution should be taken wit tients having hypertension, diabetes, hyperthyroidism and cardiovascular disea Caution should also be used in patients with pulmonary, hepatic or renal insuffici

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddi dryness of mucous membranes, tightness of the chest, thickening of bronchial s tions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hype sion, faintness, dizziness, tinnitus, headache, incoordination, visual disturbar mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, cons tion, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, st tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours, r exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls ir 24-hour period. Children 2 to 6 years of age ½ teaspoontul every 4 hours, not to exc 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directe a physician.

HOW SUPPLIED

Pint bottles (16 fl. oz.)	NDC 0524-10

Federal law prohibits dispensing without prescription

DISTRIBUTED BY:
Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

MANUFACTURED BY:
Vitarine Company, Inc.
Springfield Gardens, New York 11413

Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106
Pioneers in Medicine For the Family

The Journal Of The Kentucky Medical Association

December 1980 Volume 78 Number 12

Cutaneous Blastomycosis An Unusual Presentation

JAMES E. TURNER, PH.D., M.D., STEVEN J. HODGE, M.D. AND GABRIEL G. GRUBER, M.D.

Cutaneous blastomycosis most commonly represents dissemination of *Blastomyces dermatitidis* from the lungs. We present a case of cutaneous blastomycosis originally treated as an infected cyst. No epidemiologic risk factors were observed.

Introduction

NORTH American blastomycosis is a chronic infectious disease, usually of pulmonary origin,[1] which may be associated with dissemination to bone, genitourinary tract and especially the skin. Only a few cases of primary cutaneous blastomycosis have been reported,[2,3] occurring after accidental self-inoculation by laboratory personnel or by pathologists.

Blastomycosis is caused by a dimorphic fungus, *Blastomyces dermatitidis*. The disease is encountered with greatest frequency in the central United States,[4] found more frequently in males than in females, and more often in farmers.

From the University of Louisville School of Medicine, Dermatology Section, 323 East Chestnut St., Louisville, KY 40202

We present a case of cutaneous blastomycosis that was treated as an infected cyst before the correct diagnosis was made.

Report of a Case

A 41-year-old white female was seen with a lesion on the right upper arm of 14 months duration. The lesion was initially described as an infected 2 cm cyst, or lipoma and was treated over the following six months by systemic antibiotics, incision and drainage on two occasions, and warm compresses. The lesion continued to drain, subsequently becoming crusted. Later, smaller satellite lesions developed near the initial lesion. The patient was then lost to follow-up for four months, after which she was examined. Physical examination revealed (Fig 1 and 2) on the flexural aspect of the right upper arm, an 8 x 2 cm irregularly shaped plaque. The lesion had a raised serpiginous erythematous border that was somewhat translucent and which surrounded a large central crusted area. Above and below the main lesion were 2 cm erythematous nodules with superficial erosions.

The remainder of the cutaneous exam was unremarkable, revealing only a small 3-5 mm xan-

thomatous lesion on the right upper eyelid. The remainder of patient's physical examination was unremarkable. The patient denied any recent history of weight loss, fevers or night sweats. She also denied knowledge of any environmental exposures which would put her at risk for developing respiratory or cutaneous infection. She had smoked two packs of cigarettes a day for 20 years.

A biopsy of the lesion revealed hyperkeratosis, acanthosis and pseudoepitheliomatus hyperplasia, associated with intraepithelial abscesses and underlying granulomatous inflammation. A PAS stain revealed budding yeast forms compatible with *Blastomyces dermatitidis* (Fig 3). A culture of the lesion was positive for *Blastomyces dermatitidis.*

Laboratory

Abnormal or positive findings, in addition to skin biopsy and culture (as noted above), included a 7 mm posterior pleural calcification in the left upper lung, noted on chest x-ray. Normal values were found for bone x-rays and bone scan, complete blood count, SMA-18, Westergren sedimentation rate, VDRL, serum alkaline phosphatase fractionation, blastomycin and histoplasmin skin tests and renal function studies.

Clinical Course

Treatment was initiated with intravenous amphotericin B at a dose of 20 mg administered every three days. The dosage of amphotericin B was later increased to 50 mg every three days after two weeks of monitoring renal function and noted tolerance of patient to the drug. The lesions began to resolve after five to six days of treatment and were completely gone after one gram of amphotericin B had been administered.

Comment

The soil is generally considered the main source of *Blastomyces dermatitidis* and neither man-to-man infection, with one exception[5] nor animal-to-man transmission has been demonstrated. Primary skin infections with blastomycosis in laboratory personnel have been traced to accidental inoculation of the organism.

The diagnosis of blastomycosis is based on the clinical history and the characteristic gross and microscopic findings of the lesion. The most characteristic finding is an elevated, verrucous, crusted lesion having a serpiginous border and a tendency toward central healing with a depigmented atropic scar. The lesions occur most commonly on areas of exposed skin such as the face, hands, and arms.

This case was unusual in that it initially presented as a subcutaneous nodule, thought to be a lipoma or an inclusion cyst. After several months of treatment the lesion had developed the classic characteristics of cutaneous blastomycosis.

In a series of 10 cases of blastomycosis presented by Vanek *et al,*[6] eight cases were diagnosed in the lungs with generalized dissemination



Fig 1: An 8 cm x 2 cm irregular shaped crusted plaque of the flexural aspect of right arm. Satellite nodules are noted above and below the plaque.



Fig 2: Close up view of the verrucous-like crusted plaque overlying an erythematous base.

in four cases. One case was unique in that blastomycosis was found in the breast, in the absence of demonstration of lesions in the skin, lungs or other organs.

Hashimoto *et al*[7] reported a case of a widespread pustular eruption of the trunk and extremities, initially clinically thought to be miliaria pustulosa and subsequently diagnosed as blastomycosis.

Current therapy for blastomycosis is Amphotericin B, but may also include Miconazole. Amphotericin B has known renal and hepatic toxicity[8] and because of this toxicity, careful monitoring of kidney and liver function must be carried out before initiating therapy and during treatment.

Two types of reactions with intravenous usage of Amphotericin B have been described: idiosyncratic and dose related.[9] Idiosyncratic reactions though rare, include grand mal seizures, vertigo, flushing, anaphylaxis, thrombocytopenia, acute liver failure, generalized pain, ventricular fibrillation and cardiac arrest. Dose-related side effects may include anemia, hypokalemia, fever, and chills.

Miconazole, a phenethylimidozole,[10] is effective in vitro against pathogenic fungi, including deep mycoses in man,[11] and appears to be less toxic than Amphotericin B.

Relapse of blastomycosis after successful treatment with adequate doses of Amphotericin B is rare.[12] Rose and Varkey[13] used Miconazole to treat two patients who had undergone second relapses of pulmonary blastomycosis after receiving cumulative doses of approximately 5.0 g Amphotericin B for treatment of the initial episodes.

Blastomycosis usually presents to the clinician as a cutaneous, pulmonary or, less frequently, mucosal ulceration. This case was unusual in its presentation as a cyst and responded well to Amphotericin B, without the above mentioned side effects.

References 1. Schwarz J, Baum GL: Blastomycosis. *Amer J Clin Path* 21:999-1029, 1951. 2. Harrel ER, Curtis AC: North American blastomycosis. *Amer J Med* 27:750-766, 1959. 3. Wilson W, et al: Primary cutaneous North American blastomycosis. *Arch Dermatol* 71:39-45, 1955. 4. Schwarz J, Baum GL: North American blastomycosis (geographic distribution, pathology and pathogenesis). *Docum Med Geogr Trop* 5:29-41, 1953. 5. Farber RE, Leahy MS, and Meadows TR: Endometrial blastomycosis acquired by sexual contact. *Amer J Obstet Gynec* 32:195-199, 1968. 6. Vanek J, Schwarz J, and Hakim S. North American blastomycosis: a study of ten cases. *Amer J Clin Path* 54:384-400, 1970. 7. Hashimoto K et al: Pustular blastomycosis. *Int J Derm* 16(4):277-280, 1977. 8. Greenburg RN and Sanders CV: Amphotericin B and blastomycosis. *South Med J* 71(7):880-881, 1978. 9. Utz JP et al: Amphotericin toxicity. *Ann Intern Med* 61:334-354, 1964. 10. Von Cutsem JM and Thienpoint D: Miconozale, a broad-spectrum antimycotic agent with antibacterial activity. *Chemotherapy* 17:392-404, 1972. 11. Steven DA, Levine HB and Deresinski SC: Miconozale in coccidiomycosis. II, Therapeutic and pharmacologic studies in man. *Am J Med* 60:191-202, 1976. 12. Witorsch P and Utz JP: North American blastomycosis: A study of 40 patients. *Medicine* 47:169-200, 1968. 13. Rose HD and Varkey B: Miconozale treatment of relapsed pulmonary blastomycosis. *Amer Rev of Resp Dis* 118:403-408, 1978.

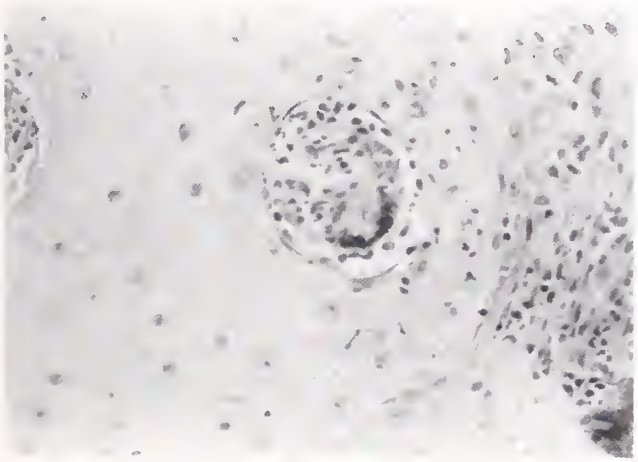


Fig 3: High power view reveals an intraepidermal abscess containing a giant cell with PAS positive budding yeast forms.

Clinical Approach to the Choice of Antimicrobial Therapy, Case #22: Recurrent Furunculosis

MICHAEL S. SAAG, M.D., MARTIN J. RAFF, M.D. AND JULIO C. MELO, M.D.

This is the twenty-third in a series of articles that attempt to provide practicing physicians in the Commonwealth with practical guidelines for the diagnosis of infectious diseases and the use of antibiotics. A case history is presented, followed by multiple choice questions relevant to management of the patient described. The authors' choices of answers and explanations of how they assessed these cases and chose therapeutic regimens are provided.

A 21-year-old male is admitted to hospital with a two-day history of a painful, erythematous swelling on the lateral aspect of his nose. Three weeks prior to admission the patient had a similar lesion that had resolved without treatment. He reports having had a series of "boils" on his right leg and scrotum six months prior to admission. The patient had not had fever, chills, nausea, vomiting, diarrhea or joint pain, but does recall one episode of diaphoresis the night prior to admission. He is married, has a 16-month-old daughter, is employed as an auto mechanic, and has three cats and one dog at home.

Physical examination reveals an alert, oriented male in no distress with blood pressure 140/80 mm Hg, pulse 90/min, temperature 99.2°F, and respirations 18/min. There is a marked edematous erythematous area medial to the left eye with extension supraorbitally. There is a small draining sinus tract on the medial aspect of the lesion with covering eschar. A grade II/VI midsystolic murmur is heard at the left sternal border, subsequently proven to be due to mitral valve prolapse. The remainder of the examination is normal. Laboratory data reveals a hemoglobin of 16.7 gm/dl, hematocrit 42%, WBC count 7,700/mm^3 with 82% neutrophils and 18% lymphocytes. Further evaluation of this patient should include each of the following **except:**

A. Blood culture times three, 30 minutes apart
B. Gram stain and culture directly from the lesion
C. Lumbar puncture
D. Culture of the patient's nasopharynx
E. Culture of his wife and child's nasopharynx

Answer: C. Lumbar puncture.

There is no indication at this time for a lumbar puncture. The patient is alert and does not have headaches, chills, nausea, vomiting or other symptoms or signs suggestive of meningeal irritation. It should be noted, however, that on occasion, infection occurring in the nasolabial area may extend into the intracranial venous sinuses, resulting in life-threatening thrombosis.[1,2,3] Fortunately, the incidence of cavernous and lateral sinus thrombosis is low, yet the threat of its occurrence emphasizes the importance of rapid recognition and treatment of facial infections.

Gram stain and culture of purulent material obtained directly from the lesion are the most appropriate means by which to determine the etiology of the infection. A presumptive diagnosis can be based upon results of the gram stain. How-

From the Section of Infectious Diseases, Department of Medicine, the University of Louisville School of Medicine, Louisville, KY 40292

ever, culture of the discharge should always be obtained in order to confirm the initial diagnosis and to determine the antimicrobial sensitivity of the organism isolated. The history of night sweats on the evening prior to admission suggests the possibility of transient bacteremia that may be confirmed with positive blood cultures. If blood cultures are positive the possibility of more extensive infection should be suspected. *Staphylococcus aureus* is the most common organism responsible for recurrent furunculosis. These cutaneous lesions are most often caused by reinfection with organisms which are endogenous to the host and resident in carrier sites such as the perineum, nasal mucosa and axillae.[3,4] The patient may also develop new lesions following reacquisition of the organisms by exposure to family members or pets who have become colonized. It is generally felt that *Staphylococcus aureus* is usually spread by transfer of the organism from these common carrier sites to the bedding, clothing, or skin of the carrier.[5] A thorough evaluation which includes cultures of common carrier sites of both the patient and members of their family helps to direct future preventive measures.[4]

In this case, culture of the patient's nasopharynx grew *S. aureus* while culture of his wife's nasopharynx yielded *S. epidermidis.* Gram stain of the patient's lesion revealed many gram-positive cocci in irregular clusters. The patient is not known to be allergic to penicillin.

Which of the following antimicrobial agents would be the best choice of therapy?

A. Penicillin G, 2 million units IV q 4h
B. Carbenicillin, 5 grams IV q 4h
C. Nafcillin or oxacillin, 2 grams IV q 4h
D. Cephalothin, 2 grams IV q 4h
E. Erythromycin, 1 gram p.o. q 6h

Answer: C. Nafcillin or oxacillin, 2 grams IV q 4h

A presumptive diagnosis of staphylococcal furunculosis can be made based on the clinical presentation and results of the gram stain. In light of the systemic manifestations and the relative threat of cavernous sinus thrombosis, it is felt that systemic chemotherapy should be started as soon as possible.[3] There are some individuals, however, who feel that oral therapy with an antistaphylococcal agent would be adequate. Penicillin G is well known for its excellent activity against gram-positive cocci; however, production of penicillinase (an enzyme that cleaves the beta lactam ring of Penicillin G yielding a microbiologically inactive byproduct) by some staphylococcal species results in unpredictable antimicrobial efficacy of penicillin against these organisms. Hughes *et al* reported that 85% of community acquired staphylococcal infections of the skin were resistant to penicillin G.[6] Therefore, penicillin G should only be used if *in vitro* susceptibility tests have proven effectiveness.

Carbenicillin is also inactivated by penicillinase-producing staphylococcal species. Its activity is four- to eight-fold less than penicillin G against non-penicillinase producing staphylococci and it is far more expensive.[7,8] It may be useful however, in treating mixed infections involving *Pseudomonas aeruginosa* or indole-negative *Proteus* species and susceptible staphylococci.[9]

Erythromycin, once widely used, is no longer the treatment of choice for staphylococcal infections. With the advent of the semi-synthetic penicillinase-resistant penicillins (*ie* methicillin, oxacillin, nafcillin) and the development of erythromycin-resistant strains, erythromycin is now used almost solely in patients allergic to penicillins and cephalosporins.

The cephalosporins (with the exception of cephaloglycin) are active against penicillinase-producing staphylococci, making them satisfactory agents in the treatment of staphylococcal furunculosis.[9,10] However, they offer no advantage over narrower spectrum penicillinase-resistant penicillins and are regarded primarily as an alternative mode of therapy when there is a clear history of allergy to penicillins or when treating mixed infections.[9] Cephalothin or cefazolin would be suitable parenteral cephalosporins with a low incidence of dose-related side effects. Cephalexin is well-absorbed from the GI tract and is usually the cephalosporin of choice when oral therapy is indicated.

Methicillin, nafcillin and oxacillin are semi-synthetic penicillins which are resistant to staphylo-

coccal penicillinase. It has been suggested that the three drugs are essentially interchangeable.[11,12] Nafcillin is not reliably absorbed from the gastrointestinal tract and use of the oral form of this compound cannot be recommended. When oral therapy is desired, oxacillin, cloxacillin, or dicloxacillin are felt to be the agents of choice.[9]

In addition to systemic antibiotics, each of the following measures should be instituted in the management of this patient **except:**

A. Institute staphylococcal wound isolation
B. Apply hot, wet dressings to the lesion several times daily
C. Apply topical antibiotics to the lesion
D. Incision and drainage when the lesion becomes fluctuant
E. Instruct the patient not to squeeze or pick at the lesion

Answer: C. It is not necessary to apply topical antibiotics to the lesion.

Topical antibacterial agents are generally of no use in the treatment of acute staphylococcal furunculosis. Some reports advocate their use, stating that topical agents prevent the spread of the organisms to surrounding areas.[13] However, there are no controlled studies supporting this contention. It is known that topical antibiotics do not penetrate into the lesion and that the incidence of induction of hypersensitivity reactions is greater with topical antibiotics.[14] Topical therapy of localized cutaneous infections is therefore unnecessary and perhaps deleterious in the great majority of cases.

Incision and drainage of cutaneous infections is one of the mainstays of antistaphylococcal therapy. Staphylococci are known for their capacity to survive in purulent exudates for extended periods of time despite what appears to be adequate antibiotic therapy. Failure to appropriately drain a staphylococcal lesion may result in local extension as well as an increased risk of hematogenous dissemination.[9] Specimens obtained by incision and drainage should always be sent for gram stain and culture.

Many patients with staphylococcal infections discharge large numbers of organisms into the surrounding environment. This creates the potential for cross-infection of family members, hospital staff and other patients.[9] All hospitalized patients with staphylococcal infections should be isolated until the organism is no longer capable of being disseminated.

The application of moist heat to a draining furuncle is comforting, hastens evolution, and promotes earlier and often spontaneous drainage.[15] The patient should be instructed not to squeeze or pick at the lesions as this may lead to mechanical dispersion of the infection and increase the likelihood of hematogenous dissemination.

The patient has responded well to treatment. The edema has diminished markedly by the third hospital day and intravenous antimicrobial therapy is discontinued on the fifth hospital day. Cultures have grown *S. aureus,* sensitive to semisynthetic penicillins but resistant to penicillinase-susceptible penicillins.

In light of the recurrent nature of this patient's disease, all of the following preventive measures should be considered at the time of discharge **except:**

A. Continue antibiotic therapy for at least four weeks
B. Have the patient apply topical Neosporin® to his nasopharynx TID
C. Instruct the patient to bathe with 3% Hexachlorophene soap only
D. In the event of frequent recurrences consider the use of an autogenous staphylococcal vaccine
E. If other preventive measures fail, consider recolonization of the patient's carrier sites with a staphylococcal species of low virulence

Answer: D. Despite frequent recurrences the use of an autogenous staphylococcal vaccine does not appear to be a rational alternative.

Double blind studies have shown that the staphylococcal bacteriophage-lysed vaccine has no effect on the course of recurrent furunculosis[5,16,17,18] although there are anecdotal reports of cures. As stated previously, recurrent staphylococcal furunculosis is most often due to recolonization of the cutaneous surface by organisms resident in carrier sites such as the naso-

pharynx. These bacteria may originate from the patient's endogenous flora or may be acquired by contact with another carrier, usually a family member or close associate. The application of topical antibiotics to the nasopharynx and the hexachlorophene soap washes are employed to rid the patient of his carrier state and thereby decrease the incidence of recurrence. Oral antibiotics should be continued for at least one month to insure completeness of therapy and to allow for a furuncle-free interval while attempts are made to eradicate the carrier state.

One of the more fascinating approaches to therapy of recurrent staphylococcal furunculosis has been the use of bacterial interference; the administration of a live, less virulent strain of an organism which results in protection of the host from the more virulent, pathogenic strain. This occurs because two strains of staphylococci do not appear to be compatible with mutual survival at the same site. Therefore reduction in the total numbers of the virulent strain using topical agents, followed by the application of high concentrations of the avirulent strain appears to result in complete eradication of the infecting organism from carrier sites. The interfering strain should not have the capacity to produce disease, be easy to establish as a saprophytic colonizer, be easily identifiable, and be readily susceptible to antibiotics.[13] Shinefield, *et al,* demonstrated that the colonization of the nasal mucosa with a marker strain (502A) of staphylococci interferes with the subsequent colonization of the site by other staphylococcal strains.[19] Strain 502A is a low-virulent, easily identifiable staphylococcus sensitive to penicillin and high doses of tetracycline. Strauss *et al* were the first to successfully prevent recurrence of staphylococcal furunculosis by colonizing the nasal mucosa with strain 502A.[20] Subsequent controlled studies by Boris *et al* demonstrated that colonization with strain 502A curtailed recurrent furunculosis in about 80% of treated individuals.[21]

When bacterial interference therapy is desired, the patient's nasopharynx and throat should be cultured and the coagulase-positive staphylococci phage-typed. The patient is then placed on appropriate oral antibiotics and treated concomitantly with a topical antibiotic applied liberally to the common carrier sites several times each day. When repeat cultures are negative (usually within five to seven days), the patient is colonized with strain 502A by placing one drop of an overnight culture into each nostril daily for five days. The patient then returns in one month for a repeat nasal culture. If colonization is not successful, the procedure is repeated.[22]

In summary, recurrent staphylococcal furunculosis represents a common and often difficult clinical problem. It often affects several members of a family and rarely regresses spontaneously. Therapeutic modalities are frequently unsuccessful on the first attempt and correct management requires a thorough understanding of the underlying pathophysiology. Successful therapy requires perserverence and dedication to compliance on the part of both the physician and the patient.

References 1. Vinnick L, Cooper E B and Overhold E L: Cavernous sinus thrombosis. *Arch Otolaryn* 82:303-306, 1965. 2. Shulman J A and Nahmias A J: Staphylococcal infections: clinical aspects in *The Staphylococci,* Cohen, J O (ed) p. 457-482, Wiley-Interscience, New York, 1972. 3. Landau J W: How I treat furuncles, carbuncles, and impetigo. *Postgrad Med* 41:A127-129, 1967. 4. Tulloch L G, Alder V G, and Gillespie W A: Treatment of chronic furunculosis. *Br Med J* 5195:354-356, 1960. 5. Nahmias A J and Shulman J A: Epidemiologic aspects and control methods in *The Staphylococci,* Cohen, J O (ed) p. 483-502, Wiley-Interscience, New York, 1972. 6. Hughes G B, Chidi C C and Macon W L: Staphylococci in community acquired infections: increased resistance to penicillin. *Ann Surg* 183:355-357, 1976. 7. Smith C B, Wilfert J N, Dans P E, *et al: In vitro* activity of carbenicillin and results of treatment of infections due to pseudomonas with carbenicillin singly and in combination with gentamicin. *J Infect Dis* 122:514-525, 1970. 8. Klein J O, and Finland M: The new penicillins. *N Engl J Med* 269:1019-1025, 1074-1082, 1129-1134, 1963. 9. Eickhoff T C: Therapy of staphylococcal infection in *The Staphylococci,* Cohen, J O (ed) p. 517-541, Wiley-Interscience, New York, 1972. 10. Klein J O, Eickhoff T C, Tilles J G and Finland M: Cephalothin: activity *in vitro,* absorption and excretion in normal subject and clinical observations in 40 patients. *Am J Med Sci* 248:640-656, 1964. 11. Gilbert D N and Sanford J P: Methicillin: critical appraisal after a decade of experience. *Med Clin N Am* 54:1113-25, 1970. 12. Klein J O, Sabath B W, *et al:* Oxacillin treatment of severe staphylococcal infections. *N Engl J Med* 269:1215-25, 1963. 13. Fritsch W C: Therapy of impetigo and Furunculosis. *J Am Med Assoc* 214:1862-1866, 1970. 14. Patrick J, Panzer J D and Derbes V J: Neomycin sensitivity in the normal (non atopic) individual. *Arch Derm* 102-532-535, 1970. 15. Amos W E: Furunculosis and its management. *Med Bull U.S. Army Europe* 20:306-308, 1963. 16. Bryant R E, Sanford J P and Alcoze T: Treatment of recurrent furunculosis with staphylococcal bacteriophage-lysed vaccine. *J Am Med Assoc* 194:11-14, 1965. 17. Burkinshaw H: Subsequent infection of infants born in a maternity hospital. A trial of staphylococcal vaccine and toxoid and a study of the relation between infection in the maternity hospital and subseouent infection. *Arch Dis Childhood* 39:485-491, 1964. 18. Maibach H I: Staphylococcus toxoid in Symposium on Bacterial Infections of the Skin. Proc. XII Internat. Congress Derm. Washington, P. 1035, 1962. 19. Shinefield H R, Ribble, J C, *et al:* Bacterial interference: its effect on nursery-acquired infections with *Staphylococcus aureus* V, an analysis and interpretation. *Am J Dis Children* 105:683-688, 1963. 20. Strauss W G, Maibach H I, and Hurst V: Purposeful change of staphylococcal bacteriophage types: report of a case in a patient with furunculosis. *J Am Med Assoc* 191:759-761, 1965. 21. Boris M, Shinefield H R, *et al:* Bacterial interference. Protection against recurrent intrafamilial staphylococcal disease. *Am J Dis Children* 115:521-529, 1968. 22. Maibach H I, Strauss W G and Shinefield H R: Bacterial interference: relating to chronic furunculosis in man. *Br J Derm* 81 Suppl. 1, 69-76, 1969.

Recognition and Management of Neonatal Sepsis

CAROLYN J. FORGEY, M.D. AND DAVID H. ADAMKIN, M.D.

The identification of the septic neonate requires an appreciation of the perinatal risk factors, subtle clinical signs and those microorganisms most likely involved. The symptoms, diagnostic evaluation, and the infecting agents with the dosages of appropriate antibiotics are reviewed.

THE septic neonate presents the practitioner with one of medicines most difficult diagnostic and therapeutic challenges. Nonspecific symptoms such as poor feeding, changes in alertness and slight variations in vital signs may be the only aberrations preceding overwhelming infection. The neonate with advancing or frank sepsis often presents only the vague indication of "doing poorly." Infection is a major cause of morbidity and mortality in the newborn period with an incidence of one per 1000 live births in term infants and one per 250 in preterms.[1] Rapid diagnosis and treatment demands a high index of suspicion including an understanding of those perinatal factors that place the newborn at increased risk, the subtle clinical signs, and appreciating which micro-organisms are the most likely offending agents.

Risk Factors

Important perinatal factors which may predispose toward infection include premature and/or prolonged rupture of maternal membranes, chorioamnionitis and documented maternal infection. Obstetrical complications such as precipitous delivery, nonsterile delivery, abruptio placenta and maternal toxemia may also place the infant at risk.[1,2,3] After delivery other risk factors come into play. For example, admission to an intensive care nursery (ICN) increases an infant's risk for infection to the range of 5-25%.[4,5] The unique immunologic status of such newborns places these critically ill babies at increased risk. Instead of localizing infection, the neonatal host demonstrates a systemic response to sepsis. In the intensive care setting they are exposed to invasive procedures and equipment such as catheters, endotracheal tubes, ventilators and various monitoring devices which can serve as avenues or sources for nosocomial infections.[2,6]

Of importance in the well-baby nursery, as well as the ICN, is the strict adherence to good handwashing techniques to eliminate spread of possible pathogens. Also one should be aware of the prevailing organisms in the nursery environment and keep close surveillance for the appearance of unusual organisms or mini-epidemics which might indicate a breach in techniques.

General Clinical Signs

The clinical signs of neonatal sepsis are often vague, masking as respiratory, gastro-intestinal or metabolic disturbances. Lethargy and poor feeding are frequent presenting signs, (the gestalt of "doing poorly"), however, the infant may also be excessively irritable if meningitis is present. Vomiting, diarrhea and abdominal distention may be present, as well as respiratory distress, apnea, cyanosis and tachypnea. Alterations in temperature are often present but may manifest as hypothermia rather than fever. Jaundice and hepatosplenomegaly may also be signs of infection but generally are not the presenting symptoms. Rashes and petechia may be seen but are usually in association with other manifestations.[1,2,6]

From the University of Louisville School of Medicine, Department of Pediatrics, Louisville, KY

Major Etiologic Organisms

Although the overall incidence of neonatal sepsis has not significantly changed over the last 50 years, there has been a continuing change in the dominant organisms. From the 1920's through the mid-40's Group A-beta hemolytic *Streptococci* was the major organism. Next most frequent were *E. coli* and *Staphylococcus.* By the mid-1940's *E. coli* gained supremacy with *Streptococci* being all but excluded from the picture. *Staph* remained present, especially nosocomial disease caused by phage group-1 *Staph aureus.* At the same time came the emergence of other gram-negative organisms such as *Pseudomonas.*

Over the last 20 years the Group B-*Streptococcus* has emerged to the forefront, closely followed by *E. coli. Listeria monocytogenes* is ranked as the third most common organism, especially when meningitis is considered.

Other organisms which are seen, but with less frequency, are *Pneumococcus, Hemophilus influenza,* and in intensive care settings *Pseudomonas, Klebsiella* and *Serratia.*[1,6]

Group B-Strep

This organism is a common inhabitant of the genitourinary tract of the gravid female with colonization rates from various studies ranging from 2% to 30% with an equal distribution of serotypes.[1,2,6] Approximately 75% of infants born to colonized mothers will be colonized with identical strains by 48 hours after birth. There is also some horizontal nosocomial colonization via the hands of nursery personnel. The rate of colonization to invasive disease necessitating treatment is approximately one per 100.[6]

Group B-Streptococcal disease presents with two distinct syndromes, the early-onset (EOGBS) and late-onset forms (LOGBS). EOGBS usually presents as a fulminant septicemia with a predominating respiratory component mimicking hyaline membrane disease in the premature infant. The early appearance of apnea followed by shock may help differentiate EOGBS from hyaline membrane disease. Although it may appear anytime during the first week of life, the classic presentation is within the first 12 hours of life, often with progressive rapid deterioration to death within 24 hours despite treatment.[1,2,4,6] The overall mortality is 40-80%.[6] The disease affects both full term and preterm infants, but there is greater frequency and mortality in the premature.[6]

All serotypes seem to contribute equally to EOGBS, however, if meningeal involvement is present, the type III serotype is almost exclusively found.[2,6]

The LOGBS syndrome is more insidious in onset, occurring usually after 10 days of life, and may be seen up to four months of age.[1,2,6] There is usually meningeal involvement with the infant presenting with fever, upper respiratory symptoms and lethargy.[6] The mortality which is much less than EOGBS is around 15-20%, however up to 50% of survivors have been found to have neurologic sequelae at follow-up.[6] The type III organism is isolated in 90% of LOGBS which may be related to specific antigenic determinants which provide the organism access to the meninges.[6]

Escherichea coli

Sepsis and/or meningitis from *E. coli* may present anytime during the first month of life, usually manifesting as a generalized sepsis.[6] *E. coli* are classified according to characteristic antigens. Of specific interest in neonatal sepsis is the capsular antigen K-1. *E. coli* K_1 currently accounts for 75-85% of neonatal E. coli meningitis[1,6] and 40% of sepsis.[6] This capsular antigen is felt to convey greater virulence to the organism by making it resistant to clearance from the circulation.[6] This organism is a common inhabitant of the rectal flora and is found in 50% of women cultured.[2,4,6] The neonatal colonization rate is 2-3% of live births and the disease attack rate is 1/1000.[6]

Listeria monocytogenes

The epidemiology of this organism is not clear and the carrier states have not been determined. However, studies have shown this organism to be the third most common agent in neonatal sepsis and meningitis.[6] Like Group B-Strep (GBS), *Listeria* has both an early-onset (EOLM) and late-onset (LOLM) syndromes.

Table I:

THERAPY SUSPECTED SEPSIS
CULTURE - BLOOD, URINE, CSF PRIOR TO INITIATION OF THERAPY
AMPICILLIN 50 MG/KG/D* DIVIDED IN
TWO DOSES <7 DAYS OF AGE
100 TO 150 MG/KG/D DIVIDED
IN THREE DOSES >7 DAYS
*DOUBLE DOSAGE FOR MENINGITIS
REVISED KANAMYCIN DOSAGE IN INFANTS

BIRTH WEIGHT	AGE	
(GM)	7 DAYS OR LESS	MORE THAN 7 DAYS
LESS THAN 2,000	7.5 MG/KG/12 HR	10 MG/KG/12 HR
MORE THAN 2,000	10 MG/KG/12 HR	10 MG/KG/8 HR
GENTAMICIN 2.5 MG/KG IM	q 12 HRS	<1 WEEK (5 MG/KG/D)
	q 8 HRS	>1 WEEK (7.5 MG/KG/D)

PNC-G IDENTIFIED GROUP B STREPTOCOCCI
50,000 to 100,000 UNITS/KG/D in
TWO OR THREE DOSES
NO EVIDENCE FOR THE EFFICACY OF COMBINED THERAPY

From Eichenwald & McCracken: Antimicrobial therapy in infants and children. *Journal of Pediatrics* 93:337-377, 1978.

In EOLM a history of maternal "flu-like" illness shortly before delivery can often be elicited. There is also an increased incidence of prematurity in these infants.[6] Onset of neonatal illness is often within hours of birth with a preponderance of respiratory symptoms and disseminated infection. There is frequently a rapid progression to a fatal outcome. Hepatosplenomegaly and a maculopapular skin rash are often present. Chest x-ray usually shows an aspiration pneumonitis which unlike GBS does not mimic hyaline membrane disease.[2,6]

The late-onset form as with GBS is usually meningitic and includes full-term infants with no significant perinatal risk factors. Presenting symptoms are fever, irritability, gastrointestinal disturbances, full fontanelle and often jaundice. The cerobrospinal fluid (CSF) usually shows a marked pleocytosis with an elevated peripheral white blood count (WBC) with a significant number of monocytes. The mortality rate is between 1% and 15%.[6]

Diagnostic Work-up

Once sepsis is suspected evaluation should include a blood culture, lumbar puncture with CSF culture, and urine culture, preferably by percutaneous bladder aspiration. These should be obtained prior to onset of antibiotic therapy. Further work-up would include a complete blood count with differential and platelet count, blood gas determination and metabolic screen of glucose, calcium and electrolytes, since sepsis can cause aberrations in these metabolic parameters. Also hypoglycemia, hypocalcemia and electrolyte disturbances may mimic sepsis in their symptomatology.

The usefulness of the peripheral WBC in evaluating sepsis in the neonate has been subject to controversy in recent years. A large number of infants with sepsis have white counts within the normal range (9,000-30,000)[7] with essentially normal differentials. Leukopenia or a total WBC count <5000 suggests sepsis as does an increased number of band forms >2000,[2,6,8] Thrombocytopenia <100,000 may also indicate sepsis.[9,10,11]

Evaluation of the CSF of neonates shows that normal infants may have more white cells and a slightly higher protein concentration than is seen in older infants. Mean cell counts in neonates without meningitis was 8.2 WBC's/mm^3 in preterms and 9 WBC's/mm^3 in term infants. CSF protein averaged 100 mg/dl.[6]

Ancillary tests which may be useful but not diagnostic are counter-immunoelectropheresis on spinal fluid and elevated C-reactive protein and erythrocyte sedimentation rates.

Treatment

When initiating antibiotic therapy for suspected sepsis in the new-born period, Ampicillin and Gentamicin or Kanamycin are the drugs of choice. When the possibility of Staph exists, especially in neonates >48 hours of age because of nosocomial infection, Methicillin should be added to the drug regimen. These antibiotics provide coverage for most of the organisms commonly found in this age group. Once culture reports and sensitivities are available more specific therapy may be directed at the offending agent. If Group-B strep is isolated penicillin-G is the drug of choice. Ampicillin is the appropriate therapy for *Listeria,* and combined therapy with Ampicillin and Gentamicin is indicated for *E. coli.*[6,12] Dosages of these agents can be found in Table I.

Duration of treatment should be 10 days to two weeks for proven sepsis or five to seven days after clinical improvement. If all cultures are negative then antibiotics may be stopped after 72 hours unless the infant is still ill or the supporting signs for sepsis are very strong. Ideally blood cultures should be obtained 48 hours after initiation of antibiotics to assure adequate treatment.[6,12]

If meningitic involvement is found, therapy should be extended. Current recommendations are two weeks of treatment after sterile spinal fluid is obtained for gram-positive organisms and a minimum of two weeks treatment for gram-negative meningitis after repeated lumbar puncture reveals sterilized CSF.

Despite the effectiveness of modern day antibiotic therapy, mortality rates still vary between 40-50%.[13] Furthermore, between 63% and 85% of those infants who survive neonatal meningitis will eventually succumb to or be left with significant and lasting neurologic defects. Because the stakes are so high, those medical personnel dealing with newborns must have a high index of suspicion which will lead to early diagnosis and appropriate therapy if we are to improve the odds.

References 1. Kaplan MJ, McCracken GH: Bacterial and Viral Infections of the Newborn. Avery "Neonatology" J. B. Lippincott Co., Philadelphia, pp. 537-565, 1975. 2. Klein JD, Marcy MS: Bacterial Infections. Remington and Klein "Infectious Disease of the Fetus and Newborn Infant" W. B. Saunders Co., Philadelphia, pp. 747-801, 1976. 3. Grylack L, Scanlon JW: Practical Evaluation of Historical Data and Laboratory Screening Procedures for Recognition of Newborn Sepsis. *Clin Pediat* 18:227-231, 1979. 4. Goldman DA: Bacterial colonization and infection in neonates. *Drug Therapy* 8:22-28, Dec. 1978. 5. Wenzel RP: The high rate of infection in the newborn intensive care unit. *Drug Therapy* 8:17-18, Dec. 1978. 6 Wientzen RL, McCracken GH: Pathogenesis and management of neonatal sepsis and meningitis. *Current Problems in Pediatrics* 7:1-61, 1977. 7. Oski FA, Naiman JL: Normal blood values in the newborn period. Oski and Naiman "Hematologic Problems in the Newborn" W. B. Saunders Co., Philadelphia, pp. 1-31, 1972. 8. Oski FA: Differential Diagnosis of Jaundice. Schaffer and Avery "Diseases of the Newborn" W. B. Saunders Co., Philadelphia, pp. 678-682, 1977. 9. Pearson HA, McIntosh S: Neonatal thrombocytopenia. *Clinics in Hematology* 7:111-122, 1978. 10. Oski FA, Naiman JL: Thrombocytopenia in the newborn. Oski and Naiman "Hematologic Problems of the Newborn" W. B. Saunders Co., Philadelphia, pp. 273-311, 1972. 11. Zipursky A, Palko J, Milner R, Akenzua GL: The hematology of bacterial infections in premature infants. *Pediatrics* 57:839-853, 1976. 12. Eichenwald HF, McCracken GH: Antimicrobial therapy in infants and children. *Journ Pediatrics* 93:337-377, 1978. 13. Kaugman S, Ward R: "Infectious Diseases of Children and Adults" C. V. Mosby, St. Louis, pp. 163-172, 1973.

Kentucky
Medical
Insurance
Company ANNOUNCES



15% RATE REDUCTION

effective December 1, 1979

The reduction applies to:

* Primary professional liability coverage
* Kentucky doctors in all risk classifications

KMIC's primary rates are now
among the lowest in Kentucky
for most medical specialties.

Added Savings for Physician Partnerships/Corporations

Many doctors can save 20%
on primary coverage (Call KMIC for more details).

Your physician owned company is once-again demonstrating its deep commitment to KMA members by offering the finest coverage available at the lowest possible cost.

IF YOU ARE A KMIC POLICYHOLDER,
the new rates will take effect on your first renewal date after December 1, 1979.

IF YOU AREN'T A KMIC POLICYHOLDER,
shouldn't you consider a change?

Kentucky Medical Insurance Company
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-3400 or
Toll free 1-800-292-1858

Avoiding the Pitfalls in Early Management of Cervical Spinal Cord Injury

Introduction

Cervical spine injury and spinal cord damage are common traumatic events, seen particularly following motor vehicle, falling or diving accidents. The presenting symptoms are generally neck pain and neurologic deficit. However, the patient often fails to complain of these symptoms or they are overshadowed by more obvious trauma. The early management of the patient can affect the recoverability of an incomplete lesion or the patient's ability to survive the complications of a complete lesion. It is imperative not only to recognize the presence of a cervical spine injury, but to institute appropriate measures to treat or avoid the common consequences of injury. The common pitfalls in dealing with this problem are outlined in the following sections.

Accident Site Management

The early management of acute spinal cord injuries begins at the accident site. The injured person should not be moved from the accident scene until suitable assistance and proper equipment is available. Movement of the patient must be carefully performed to maintain head-neck-body alignment. Neck immobility is achieved by axial traction obtained by grasping the head just below the mandible and suboccipital area. The patient should be transported to the hospital on a rigid frame with the head and neck immobilized with sandbags placed on each side of the head. If respiratory distress or vomiting occurs, the patient should be turned on his side with maintenance of head-neck-body alignment.

From the University of Kentucky Medical School, Department of Surgery, Lexington, KY

Emergency Room Management

In the emergency room the first priority is to insure adequacy of respiratory exchange. Nasotracheal intubation is preferred to oral-tracheal intubation because less movement of the head and neck is required. Tracheostomy should be avoided, if possible, because this contaminated opening in the anterior neck will preclude subsequent anterior cervical fusion. The neurologic examination is quickly and efficiently performed. Motor power should be tested and graded according to the following system.[1]

Grading Level

0 No contraction
1 Flicker or trace of contraction
2 Active movement, with gravity eliminated
3 Active movement against gravity
4 Active movement against gravity and resistance
5 Normal power

This method provides an objective means of determining motor strength but more importantly, is reproducible, allowing different observers to accurately compare findings. Reflex activity (including priapism) and sphincter tone must be ascertained. Position, touch and pain (pin prick) perception should be carefully evaluated. A diligent search must be made for a sensory level. Any trace of residual neurological function indicates some hope of eventual recovery. The history is frequently obtained after the

initial examination of patients with cervical spine injuries and should not be neglected. Of prime importance is the determination of whether or not the patient could move his extremities immediately following the accident. Immediate and complete quadriplegia rarely improves. The initial absence of a neurologic deficit that is followed by quadriparesis (progressing neurologic deficit) is an indication for emergency evaluation for surgical intervention.

Radiological Examination

The interpretation of cervical spine films of patients, with suspected cervical spine fractures is one of the most troublesome aspects of the initial evaluation. Following is an adaptation of a "never-miss" technique for interpreting lateral cervical spine radiographs developed by Doctor H. Martin Blacker at the University of Kentucky.[2]

The AP view is not usually as valuable as the lateral view in the initial evaluation of cervical fractures. However, the alignment of the spinous processes is best seen on the AP film. Cervical spine rotatory subluxation must be suspected if the spinous process of the involved vetebra is not in the midline and seems to be obscured by the lateral structures. Odontoid fractures are sometimes difficult to rule out because of obscuration by the teeth. Polytomography may be necessary to resolve this issue. On the open mouth AP film, besides the examination of the odontoid process itself, care should be taken to examine the alignment of the facet joints because this may be an early tipoff to C_1 fractures.

Pitfall #1 . . . Missing the Cervical Spine Fracture

A recent study showed that the initial interpretations of cervical spine films made in the emergency room were only 50% accurate. Twenty-five percent had falsely positive readings and 25% had falsely negative interpretations.[3] Ade-

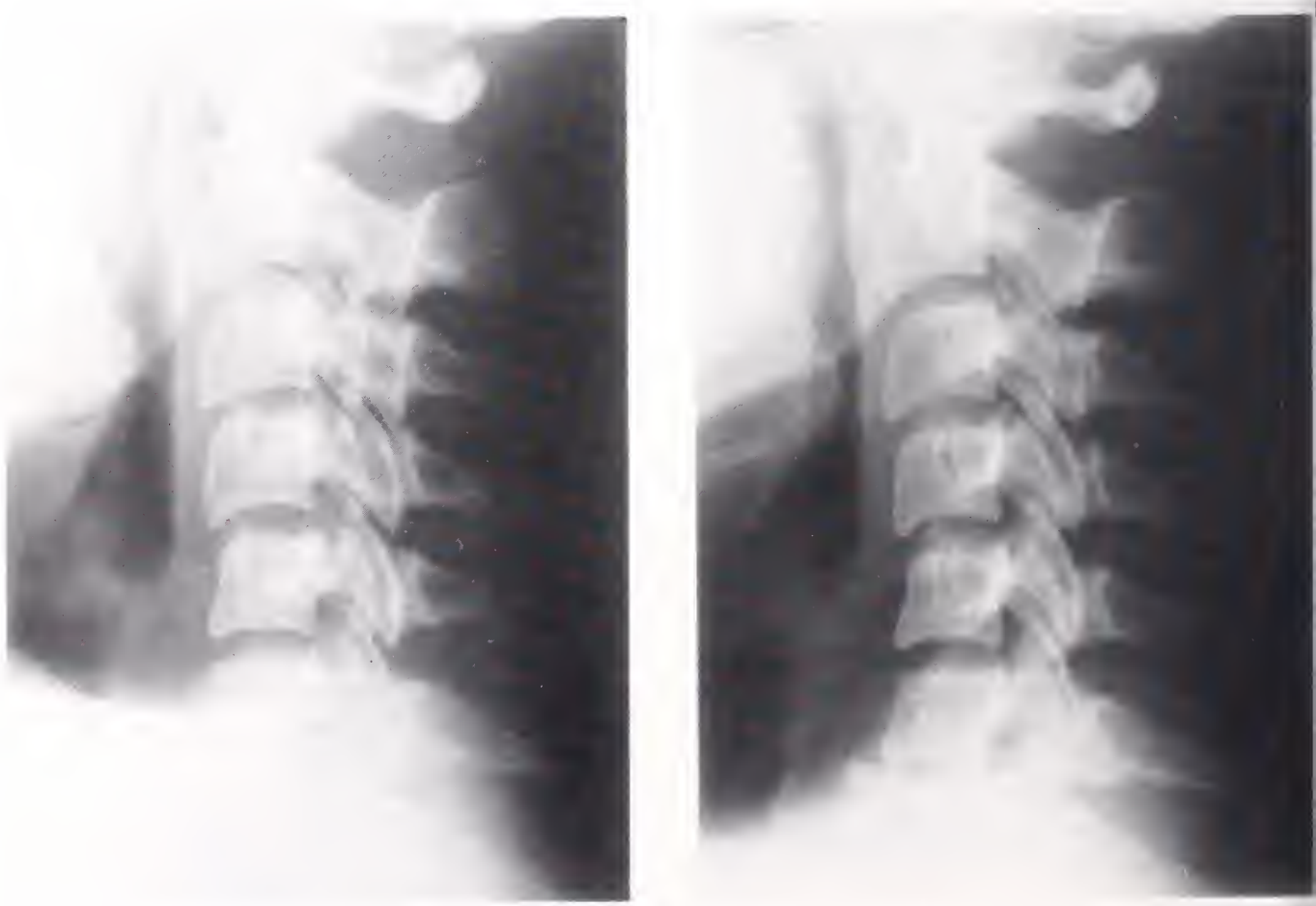


Fig. 1: Visualization of all seven cervical vertebrae is essential to properly evaluate the lateral cervical spine film. In A (left), the shoulders obscure C_7 but in B, where the shoulders are pulled caudally by traction on the arms, a fracture dislocation becomes obvious.

Lateral View	
1. Soft tissue a. retropharyngeal space b. retrotracheal space	•Measure retropharyneal space at C_2 - maximum 6 mm. Measure retrotracheal space at C_6 - maximum 22. MNEMONIC: $C_2 = 6$, $C_6 = 22$.
2. C_1 - Arch to ondontoid relationship	•Measure distance from posterior arch of C_1 to anterior edge of odontoid - maximum 3 mm.
3. Bodies and interspaces of all cervical vertebrae - C_1 - C_7	•Check height and alignment.
4. Facets	•Check each level. Make certain they are superimposed or nearly so. (One set forward and one set back may indicate rotary subluxation).
5. Laminal segment	•(Absence may indicate rotary subluxation).
6. Spinous process - root to tip	

quate radiographs often are difficult to obtain in the emergency room on a newly and severely injured patient. A major error can be avoided if the demonstration of the C_7 - T_1 junction on lateral view is considered a necessity[4] (Fig. 1).[4] The persistence of neck pain more than a few days after cervical trauma should alert the physician to obtain flexion and extension films or polytomography to rule out an undisclosed fracture. Flexion and extension films play almost no role in the early evaluation of the possible cervical spine fractures.[5] Muscle spasm and neck rigidity may prevent subluxation in a highly unstable cervical fracture and cause a false impression of spinal stability. Additionally, stressing highly unstable spine fracture with flexion and extension may cause neurological injury. Flexion and extension films are much more important in subsequent evaluations than in the initial evaluation of suspected spine fractures.

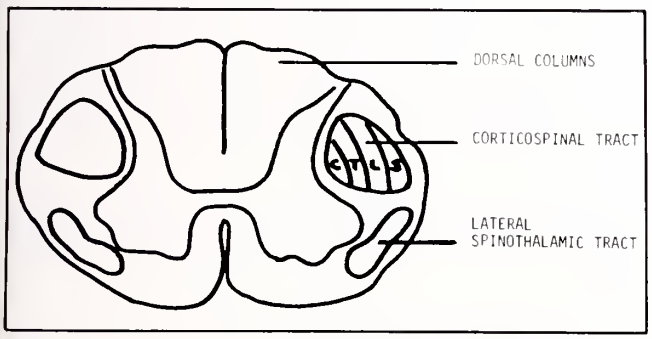


Fig. 2: It is essential to specifically test the dorsal columns, the lateral spino-thalamic tract and the corticospinal tract. In this diagram, the somatotopic lamination of cortiospinal tract (C = cervical, T = thoracic, L = lumbar, S = sacral) provides the anatomical basis for the greater vulnerability of the upper than the lower extremities in the central cord syndrome.

Pitfall #2 . . . Missing the Spinal Cord Injury

Spinal cord injuries present with different types of neurological deficits. Knowledge of the various kinds of spinal cord injury syndromes will prevent missing severe cord injuries or attributing clinical findings to hysteria or malingering.

1. **Immediate and complete quadriplegia.**

   Patients with immediate and complete quadriplegia do not cause a diagnostic quandary. They have no motor, reflex, sensory or bladder function below the involved cord segment.

2. **Acute central cervical cord injury syndrome.**[6]

   In this syndrome the motor deficit is worse in the upper extremities than in the lower extremities. The sensory deficit is variable. Patients with profound upper extremity motor deficits and almost no lower extremity deficits may falsely be mistaken to be malingering or hysterical. These injuries are usually due to hyper-extension in patients with cervical spondylosis. Compression of the spinal cord causes an area of hemorrhagic necrosis in the central cord. The reason for this disparate picture (arm weakness > leg weakness) is that the upper

extremity fibers of the lateral corticospinal tract are centrally located, but the lower extremity fibers, which are more peripheral, are less severely involved (Fig. 2).

3. **The Acute Anterior Spinal Cord Injury Syndrome.**[7]

In this syndrome there is immediate and complete loss of all motor function, but motion, position and vibratory sensation are preserved. The pin prick examination shows only hypesthesia or hypalgesia. This disparity between sensory and motor loss occurs because of anterior spinal artery injury or direct injury to the anterior spinal cord combined with indirect stress injuries to the lateral and posteriorlateral portions of the spinal cord.

Pitfall #3 . . . Causing Additional Spinal Cord Injury

Many patients with unstable spinal fractures have no cord injury. Most patients with spinal cord injuries have unstable spinal fractures. Every precaution must be taken to cause no further harm to the spinal cord by uncontrolled neck movements. Three to 10% of patients suffer delayed cord damage because of unrecognized spinal injuries.[8,9] These catastrophes are best avoided by never leaving the patient unattended during the initial diagnostic tests, until after fracture site immobility is lessened by applying skull traction tongs, and the patient is in an intensive care unit.

We routinely administer Dexamathasone (20 mg IV) soon after the patient's arrival to the emergency room and continue for at least four or five days with 6 mg every 6 hour IV. Whether this treatment helps is debatable.

Pitfall #4 . . . Mismanaging Hypotension Associated with Spinal Shock

The most common cause of death following acute spinal cord injury in Viet Nam was pulmonary edema caused by the overzealous administration of intravenous fluids.[10] Hypotension is an almost constant accompaniment of severe spinal cord injuries due to the associated sympathectomy. Blood pressure in the first day or two after a spinal cord injury usually ranges between 80-100 torr systolic. In the young patient and in the absence of coronary artery disease, this pressure head provides adequate systemic perfusion and requires no treatment. Blood pressures should probably be maintained at pre-injury levels for patients likely to have coronary artery disease. The administration of intravenous fluids in excess of maintenance doses requires the insertion of a central venous line or a Swan-Ganz catheter to guard against over hydration and pulmonary edema.

Pitfall #5 . . . Failing to Prevent Cardiac Arrest

Severe brady arhythmias occasionally result from complete spinal cord injuries. These usually develop over several hours and are detected by constant EKG monitoring during the first few days after spinal cord injury. If the pulse rate drops below 60/min a Swan-Ganz or central venous catheter should be inserted. Cardiac rate can then be safely elevated by administering Isoproterenol after the wedge pressure or central venous pressure is brought to high normal ranges.[11] Expansion of the vascular compartment prevents the hypotension which may accompany the administration of Isoproterenol.

Pitfall #6 . . . Misinterpreting Breathing Pattern

Transection of the cervical spinal cord results in paradoxical respiration in which the abdomen expands on inspiration and the chest retracts. This pattern occurs because the intercostal muscles (T_1 - T_{12}) are paralyzed but diaphramatic intervation ($C_{3\text{-}4\text{-}5}$) remains intact after low cervical cord injuries. The patient appears to be laboring to breathe, but respiration is usually adequate. If the pO_2 is normal, the airway is not obstructed, and respiration is not actually labored intubation is not necessary.

Pitfall #7 . . . Missing an Abdominal Organ Injury Associated with Acute Spinal Cord Injury

Immediately following cervical spinal cord injury the patient goes through a stage of spinal shock. Spinal shock is the absence of reflexes. Patients with immediate and complete quadriplegia and spinal shock **having no abdominal organ injury** will not complain of pain, will have

no guarding, rigidity or bowel sounds, and will have hypotension and bradycardia. Those patients **with an abdominal organ injury** will likewise have no pain, guarding, rigidity or bowel sounds,and will have hypotension and bradycardia. Since the physical findings and symptoms are identical in these two groups of patients, the presence of an abdominal organ injury is very difficult to detect before fever or profound hypotension occur. Therefore, we recommend diagnostic peritoneal lavage be performed on all patients with acute spinal cord injuries who are suspected of having multiple trauma.[12]

Pitfall #8 . . . Allowing Further Damage to the Paralyzed Bladder

Spinal cord injury causes flaccid bladder paralysis. Normal micturation cannot occur. The bladder becomes over-distended, and the detrusor muscle is severely stretched. This additional bladder injury greatly prolongs rehabilitation. All patients with acute cervical spinal cord injuries should be catheterized every six hours. When the patient is referred from one hospital to another, the catheter should be left in place to prevent any chance of over-distention of the bladder.

Pitfall #9 . . . Allowing Severe Hypothermia

Patients with cervical spinal cord injuries have a sympathectomy which results in a loss of the normal mechanism for retention of body heat. During the winter months, these patients must be covered in blankets to prevent profound hypothermia from developing while being transported to another hospital.

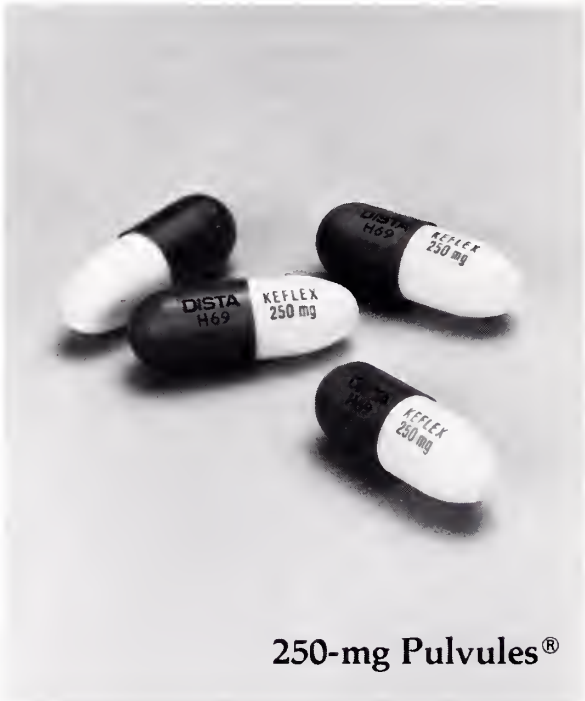
Summary

We have detailed the measures to avoid the pitfalls in the early clinical evaluation and management of patients at risk for spinal injury. Cervical immobilization and spine films should be obtained early. The extent of neurologic damage must be accurately documented. Avoidance of the common, often life-threatening, complications of quadriplegia should begin in the emergency room by recognizing potential respiratory, cardiovascular, abdominal, urinary, and neurologic catastrophes. Prompt, correct, early treatment enhances the chances for survival, recovery and rehabilitation.

References 1. Medical Research Council *Aids To The Investigation Of Peripheral Nerve Injuries* War Memorandum No. 7, HMSO, London 1943. 2. Meschan I, *Roentgen Signs In Clinical Practice* W. B. Saunders Co., Phila., 1966. 3. Binet EF, et al: Cervical Spine Tomography in Trauma *Spine* 2: 163-172, 1977. 4. Braakman R, & Penning L, Injuries Of The Cervical Spine. *Excerpta Medica,* Princeton, 1971. 5. Norrell HA, "Fracture And Dislocation Of The Spine in *The Spine,* p. 529-566, W. B. Saunders Co., Phila., 1975. 6. Schneider R, et al: Syndrome Of Acute Central Cervical Spine Cord Injury With Special Reference To The Mechanics Involved In Hypertension Injuries Of The Cervical Spine. *J Neurosurg* 11:546-577, 1954. 7. Schneider R, Syndrome Of Acute Anterior Spinal Cord Injury. *J Neurosurg* 12:95-122, 1955. 8. Geisler WO, et al: Early Management Of Patients With Trauma To The Spinal Cord. *Med Serv J Can* 22:512-523, 1966. 9. Rogers WA, Fractures And Dislocations Of The Cervical Spine. *J Bone Joint Surg* 39 A:341-376, 1957. 10. Meyer GA, et al: Hemodynamic Responses To Acute Quadriplegia With Or Without Chest Trauma. *J Neurosurg* 34:168-177, 1971. 11. Tibbs PA, et al: Studies Of Experimental Cervical Cord Transection Part I: Hemodynamic Changes After Acute Cervical Spinal Cord Transection. *J Neurosurg* 49:588-562, 1978. 12. Tibbs PA, et al: The Problem Of Acute Abdominal Disease During Spinal Cord Shock. *Amer Surg* 45:366-368, 1979.

BYRON YOUNG, M.D.
PHILLIP A. TIBBS, M.D.
JAMES R. BEAN, M.D.

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes

Pediatric Drops



100 mg/ml
10-ml size

Keflex®
cephalexin

Additional information available
to the profession on request.

DISTA

000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Advances in the Management of Ureteral Obstruction Secondary to Malignancy

Patients with ureteral obstruction secondary to pelvic malignancy are frequently seen in urologic, gynecologic and surgical practice.

Urinary diversion has been a controversial form of management of ureteral obstruction for many years. It is not recommended in terminally ill patients in whom all forms of therapy have been exhausted. However, symptomatic ureteral obstruction demands relief and correction of uremia through diversion may allow time for additional anticancer therapy while chemotherapy and radiation therapy techniques are being improved.

Once a decision has been made to relieve an obstruction there are several different methods available. Extensive surgical procedures such as the formation of an ileal conduit, or cutaneous ureterostomy are often ill-advised because the patient is too sick. Nephrostomy tubes, inserted either percutaneously or through an open surgical procedure, have been a popular form of diversion as have retrograde ureteral catheters, but these methods can adversely affect the quality of life because they require external appliances.

Over the past several years, catheters have been designed that can be used as long-term internal ureteral stents. The most common of these are the Gibbons catheter and the Double J-loop catheter. Both may be inserted in a retrograde manner using cystoscopic techniques or, if this is impossible, in an antegrade fashion through a percutaneous nephrostomy. These stents are placed entirely within the urinary system and therefore do not require any external appliance. They can be permanent or temporary, depending on the patient's needs.

These catheters allow patients with ureteral obstruction secondary to malignancy to undergo vigorous chemotherapy or radiotherapy to control the malignancy. They may also provide relief of symptomatic ureteral obstruction while patients maintain a comfortable existance with minimal morbidity and short-term hospital confinement.

James I. Harty, M.D.

Provided by the Department of Surgery, Section of Urology, University of Louisville School of Medicine, Louisville, Kentucky, at the request of the KMA Continuing Medical Education Committee.

EDITORIAL

I WENT to a Continuing Medical Education course in Louisville last Saturday. The Symposium was sponsored by a local hospital and it was apparent that a great deal of thought and effort had gone into the selection of participants and preparation for the course.

The fourth speaker was Baruch Blumberg, M.D., the Nobel Laureate in 1976 for Medicine and Physiology. He presented recent work linking the chronic carrier state of hepatitis and hepatocellular carcinoma. This neoplasm is a leading cause of death for millions in Asia and Africa. Then he discussed the possible impact of the new hepatitis vaccine and its potential for reducing the incidence of cancer. There was not much that could be translated into my day to day practice, but that talk ranks as one of the most scholarly, stimulating presentations I've ever heard. Half way through his remarks, I turned to see the reaction of others. The modest-sized auditorium was two-thirds empty. I thought, "Why?"

Could the hospital have gone to even greater lengths in publicizing the Symposium? Some notices were no doubt lost in the flood of CME circulars which inundate our offices. Almost every day brochures from two or three courses are skimmed and then thrown out. Part of the responsibility rests on the sponsors of CME courses whose true purpose lies in self aggrandizement.

The certifying agencies appear too ready to give credit to a particular institution or course without perhaps first asking "Is this trip really necessary?"

Have you filled out the AMA/CME award application lately? Or did you just look at this complex appearing document which seems almost designed to repel you rather than invite your participation?

But I guess finally it's our own fault that truly outstanding programs are lost in the copse of mediocrity. It is only through our support, attendance and participation that any CME program can continue. When we are indiscriminate, we actually breathe life into programs which should be "NO CODE."

What we need is not more CME, but less CME with enhanced quality.

JPM

A Man for all Seasons?

FALLING leaves, descending temperatures and a panoply of colors herald in our quarterly change of seasons. Though some of us can migrate to the temperate climates and shun the polar invasion, each weather demands an adaptation in activity, clothing and behavior. Often overlooked yet immensely important is our interaction with the environment and how it affects our internal milieu.

Having just experienced summer we are schooled in preventing sunburn and heat excesses. Then why should vacation cause memory lapses sufficient to let our skin burn, our bodies overheat, our gastrointestinal tract rebel and often our bones break. Our patients should be reminded that leaving their predictable environment here in Kentucky for warmer spas should also be a healthy experience. Likewise winter's frigid calling card should be respected. Skiing and cross country invite us to be intimate with nature, yet such a relationship has both benefits and responsibilities. The exhilarating northerly breezes, mixed with bits of snow are welcome, but frostbite and hypothermia are uninvited guests. A delicate cardiovascular compromise may be dashed by frivolous disregard in demanding winter activity. Less respected but equally dangerous are snow removing periods outside, maneuvering on ice and other exposing activities.

The polarities of winter and summer are famous for health challenges. Transitional times are fraught with our trying to maintain the legacy of seasons past or precipitating that element of the future for which we yearn. Here our prophylactic skills should be exhibited. Medicine, baths and casts are often sequelae of our patients indiscretion. In the confines of the office a moment of discussion with our patients about what they should respect in the environment may be very rewarding.

The human body is highly adaptable, being conservative with its internal variables, yet interacting with the external world. Keeping the fluctuations from norm moderate is our cognitive responsibility.

Disseminating information pertinent to the medical limitations is very necessary. A man for all seasons will remain so if appropriately prepared.

SZS

Deceased Kentucky Physicians 1980

Jack D. Albee, Shelbyville
John Young Barbee, Bowling Green
Glen Boles, Louisville
William E. Bowles, Louisville
Leonidas Xerxes Brown, Williamsburg
James E. Bryan, Louisville
Joseph Everette Carter, Louisa
Jack Coyer, Paducah
Raymond G. Culley, Ashland
Joseph Davis, Louisville
Arthur D. Donnelly, Jr., Bowling Green
James C. Drye, Louisville
Irving A. Gail, Lexington
Emery William Garred, Catlettsburg
Horace Harrison, Owensboro
John P. Hill, Somerset
Samuel Oscar Hodges, Lexington
Morris Richard Holtzclaw, Somerset
John Lacy Hopson, Murray
William Todd Jeffries, Columbia
Max Dudley Klein, Shelbyville
Stewart W. Leonard, Louisville
Stuart H. Light, Ashland
Albert F. Lyons, Ludlow
Samuel Glenn Marcum, Irvine
Sidney B. May, Eminence
Richard T. McMurtry, Cynthiana
William J. McNabb, Louisa
Adam Miller, Lexington
Jeff Carter Moore, Jr., Franklin
Carl W. Noble, Beattyville
Philip Nodler, Louisville
Errett Pace, Paducah
Donald L. Peterson, McKee
Mason G. Pope, Richmond
Casey J. Purdy, Paducah
Lawrence M. Quill, Williamstown
Harrell Lester Reed, Harrods Creek
Louis Reik, Covington
Billy Joe Riddle, South Shore
Henry M. Rubel, Louisville
Kenneth L. Sears, Lexington
James McKinley Stevenson, Brooksville
Woodford Bates Troutman, Louisville
Lawrence H. Wagers, Hazard
Henry G. Wells, Georgetown
Arthur Welsh (DDS), Louisville
Elwood L. Woolsey, Harlan

List of names of deceased physicians available to The Journal as of November 15, 1980

Crossing the Bar

Sunset and evening star,
And one clear call for me!
Any may there be no moaning of the bar,
When I put out to sea,

But such a tide as moving seems asleep,
Too full for sound and foam,
When that which drew from out the boundless deep
Turns again home.

Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark;

For tho' from out our bourne of Time and Place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crost the bar.

Alfred, Lord Tennyson

Without the innovators, there could be no imitators

Librium® C (chlordiazepoxide HCl) Roche
Premarin (conjugated estrogens) Ayerst Laboratories
HydroDiuril (hydrochlorothiazide) Merck Sharp & Dohme
Lanoxin (digoxin) Burroughs Wellcome Co.
Lasix (furosemide) Hoechst-Roussel
Meticorten (prednisone) Schering Corporation
Anturane (sulfinpyrazone) Ciba-Geigy Corporation
Erythrocin (erythromycin) Abbott Laboratories

Research and development, the life blood of pharmacotherapeutic progress

The drugs that have contributed so much to modern medicine were the product of long years of expensive research. And tomorrow's drugs depend upon continuation of the research and development going on right now. The cost of that research is one of the things reflected in the price of a brand-name drug. The substitution of a cheaper "generic" drug for a brand-name product may save the patient some money at the prescription counter. However, it threatens the very foundations of modern pharmaceutical research.

The hidden cost of "cheaper" generic drugs

Much of the enthusiasm for generic prescribing is based on a shortsighted view that fails to take such long-term issues into account. While cost is an important factor, pharmaceutical research, the quality of medicine, and future generations of patients must all be considered.

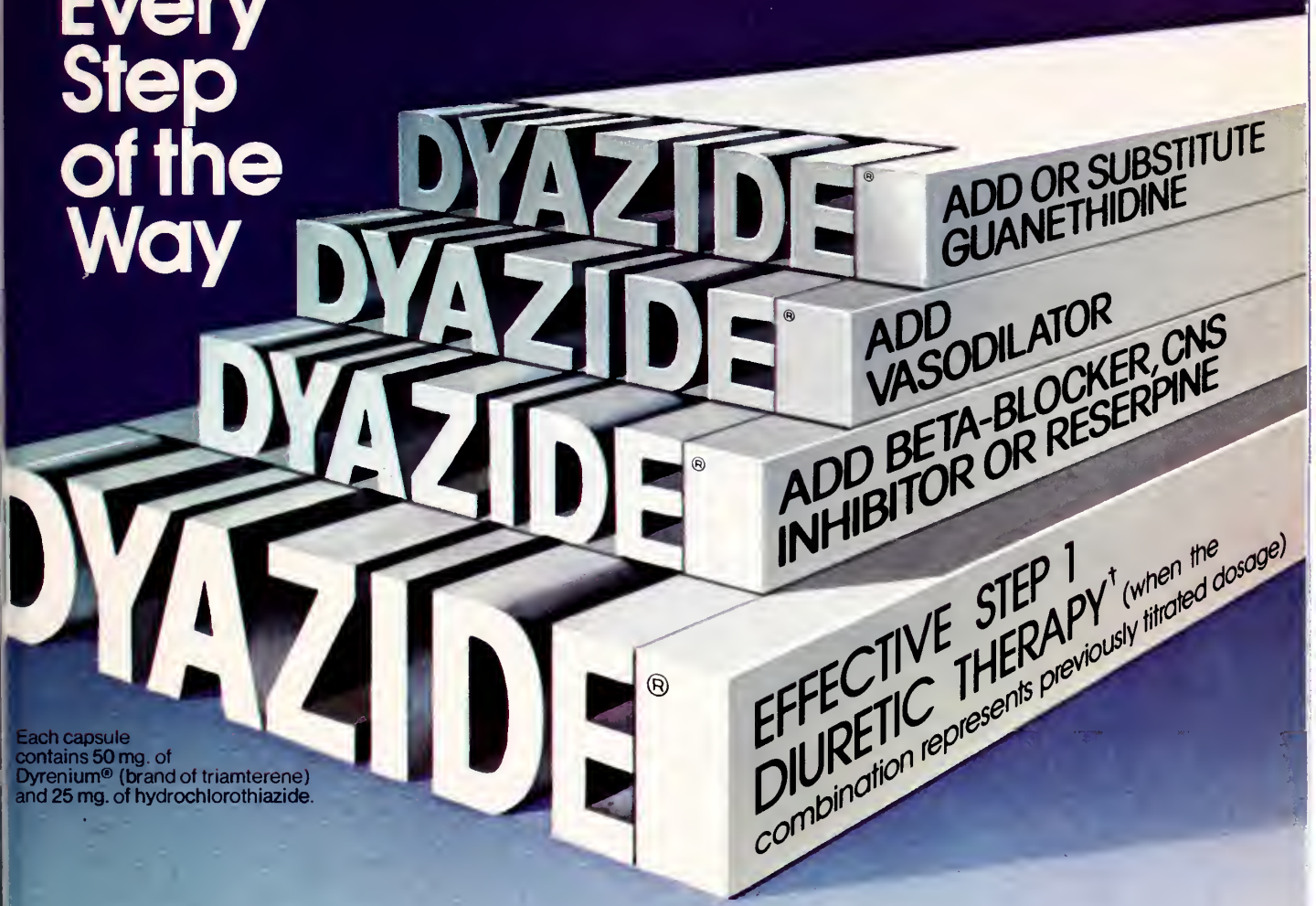
Settling for cheaper drugs today could deprive you and your patients of the drugs they may need tomorrow.

ROCHE®

To encourage imitation is to discourage innovation

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently: both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

© SK&F Co., 1980

SK&F CO.
a SmithKline company
Carolina, P.R 00630



works well in your office...

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

NEOSPORIN® Ointment—for the office, for the home.

(polymyxin B-bacitracin-neomycin)

Effective • Economical • Convenient • Recommendable

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Stephen Z. Smith, M.D.
Assistant Scientific Editor

The Allergy Baker

Carol Rudoff, Prologue Publications, 1980, 64 pages

Here is a most handy and reassuring book. For the legions of "wheezers" and "hivers" subjected to frequent allergen barages, this cookbook offers a refuge, at least to eat in peace.

Ms. Rudoff under the aegis of the American Allergy Association filtered recipes from the current hodgepodge of "allergy-free" diets.

The Allergy Baker deals with breads, muffins and cookies. Hopefully, companion books will help with other dietary segments. Gluten free recipes are included for those in need.

Often we are barren of suggestions for palatable diets for patients who have been carefully tested. Now available at a modest price and written with maternal compassion, this cookbook can be one of our recommendations.

Basic & Clinical Immunology

H.H. Fudenberg, M.D., D.P. Stites, M.D., J.L. Caldwell, M.D. and J.V. Wells, M.D., Lange Medical Publications, 1980, 782 pages

This Lange series mini-text is a creditable effort at codifying immunology. This burgeoning field has shed its doubters and assumed a prevalent role in the medical world. Students of diverse interest seem bound together in their need for immunologic skills and must master the once abstruse lexicon to converse with their colleagues. With dizzying speed academic centers are exporting immunologic knowledge that is consumable to those prepared to digest it, but seems surfeit to the ignorant. From its inception in 1976, this multi-authored review has been a popular study guide for many. This latest edition adds an overview chapter that familiarizes us with the terrain, and insidiously modernizes the former framework with current thinking.

The book could be thinned by eliminating some of the many graphs and tables that either repeat the written word or worse confuse it with abstruse material. The expense and room for the photomicrographs seemed unwarranted when adjacent accurate drawings of matching dimensions were included. Lest I dwell just on the cheaper and thinner, I welcome the comprehensive glossary of terms that linguistically equalizes author and reader. The index is full and cross-referenced—a necessity with multi-authored books.

Four sections divide the book. The initial chapters are dedicated to the fundamentals—essentially a first course in immunology. Academic license permits inclusion of data that are really of little benefit to the amateur, but legitimize the relevance of learning the basics. The subsequent discussions of immunobiology are transitional to the final sections dealing with laboratory tests and immunologic disease. Immunologists are at home in the laboratory and brief dealings with laboratory mechanics belie the complicated and evolving machinery. The written word lags behind the evolution of discoveries and such chapters are always outdated.

This is not a book of medicine in immunology. The authors refuse the clinicians role, either diagnostically or therapeutically. As a primer or handbook, this paperback has no role. For several years, however, if one has this review in his grasp, the field of immunology will not seem so untouchable.

HANDICAPPED PHYSICIANS

I am a multiply-handicapped doctor interested in contacting other handicapped physicians in order to obtain some approximation of the size and characteristics of this population in the United States and Canada. There is currently no organization to provide statistical data on the career patterns of such individuals or to what extent various handicaps affect the physician's ability to remain in active practice. Should any physician become handicapped, such information would be of utmost value in determining the feasibility of remaining in any chosen field and would also provide some indication of the career opportunities available to this unique population.

All physicians, active or inactive, with any type of physical handicap are asked to contact F. Zondlo, M.D., St. Paul-Ramsey Medical Education and Research Foundation, 640 Jackson Street, St. Paul, Minnesota 55101.

It's smarter to

LEASE

cars, trucks and equipment

NO CASH NEEDED

Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci

Bronchitis and pneumonia caused by S. pneumoniae (formerly *D. pneumoniae*)

Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*

Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacterialogic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulanephritis. In chronic urinary tract infection, frequent bacterialogic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

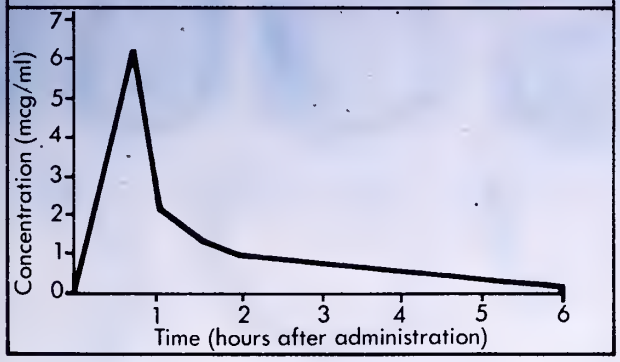
Wyeth Laboratories
Philadelphia, Pa 19101

Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

Copyright © 1980, Wyeth Laboratories. All rights reserved.

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

Wyeth Laboratories · Philadelphia, Pa 19101

The Editors and Staff of The Journal of KMA

Extend To

Our 1980 Advertisers

Sincere Thanks and Best Wishes

for a

Happy Holiday Season

Aetna Life & Casualty
American Medical Association

Blue Cross & Blue Shield & Delta Dental of Kentucky
Boehringer Ingelheim Ltd.
Boots Pharmaceuticals
Burroughs Wellcome Company
Buschemeyer's

Campbell Laboratories, Inc.

Fenwick Hall
First Kentucky Trust Company

General Leasing Corporation
Good Samaritan Hospital

Heart Association of Louisville and Jefferson County
Humana, Inc.

Impressions
Insurance Corporation of America

KEMPAC
Kentucky Medical Insurance Company

A. P. Lee Agency, Inc.
Eli Lilly & Company
Long Island Jewish Medical Center

Medical Office Space (Alfred L. Hartmann)
Medical Protective Company
Medford Property Company
Merrell National Inc.

Orthopaedic Surgeon (Agustin Sierra, M.D.)
Robert P. Osburne, M.D.

Pharmacia Diagnostics

Roche Laboratories
William H. Rorer, Inc.

Schering Corporation
Smith, Kline and French
South Central Bell

United States Air Force
University of Louisville
Upjohn Company

Van Zandt, Emrich & Cary, Inc.

Wyeth Laboratories

Synergy in Leadership, April 1-2, 1981



James P. Low

One of America's outstanding speakers and leaders, James P. Low, CAE, President of the American Society of Association Executives, has accepted an invitation to be the featured speaker at the Synergy in Leadership Conference on April 1-2, 1981, in Louisville.

Mr. Low has keynoted several American Medical Association leadership conferences and is recognized nationally for his innovative methods of training and motivating leaders. A graduate of the University of Maryland with a master's degree in business administration, Mr. Low is a member of the Executive Board of Regents of the Institutes for Organizational Management.

Low serves on the President's Council on Energy Efficiency, President's Commission on Personal Interchange and was appointed by the President to serve in the United States delegation to the funeral of Kenyan President Jomo Kenyatta. In 1979, he was appointed by the President to serve as a member of the U.S. trade delegation to the Peoples Republic of China under Ambassador Robert Strauss.

Synergy in Leadership will held in Louisville on April 1-2, 1981, at the Executive West. The meeting will be primarily designed to promote and develop physician leadership for the 80's. Special invitations will be sent out in the near future to KMA Delegates and Alternates, County, State and National officers, Legislative Keymen, KMA Committee Chairman, medical executives and other physicians in leadership positions.

Outstanding speakers from throughout the United States will appear at the Conference. Please make arrangements now to attend this exciting event. Future *Journal* articles will feature invited speakers and highlights of the upcoming Conference.

Did You Know?

The American Academy of Pediatrics (AAP) presented their Distinguished Public Information Service Award to the "Speak Up for Children" volunteer spokespersons across the country. They are being honored for their individual contributions to the Academy's national action/awareness child health campaign. The "Speak Up for Children" program was initiated in the International Year of the Child, 1979, and continued through 1980 focusing national attention on four action initiatives: accident prevention, nutrition, health education and immunization. The award is being accepted by Donald A. Cantley, M.D., FAAP, of Henderson, KY, the originator of the "Speak Up for Children" name.

The American Osteopathic Association agreed to a settlement in the four-year-old antitrust suit filed by five chiropractors against the AOA, AMA, American Hospital Association, Joint Commission on Accreditation of Hospitals and several specialty societies. The agreement prevents the AOA from interfering with relationships between chiropractors and osteopathic physicians or hospitals, leaving these relationships to individual discretion. The AOA also agreed to pay $30,000 in legal fees.

The suit, which charges that the medical and health organizations have conspired to restrain competition, was scheduled to go to trial Nov. 20 in U.S. District Court in Chicago. District Judge Nicholas Bua last year granted an AMA motion to eliminate from the suit a demand by the chiropractors for $10 million to fund a research institute.

Headquarter's Activity

DECEMBER

2-4	State Medical Exams, Louisville
3-4	KMA Board of Trustees, Louisville
4	Specialty Group Presidents, Louisville
4	KEMPAC Board of Directors Annual Meeting, Louisville
7-10	AMA Interim Meeting, San Francisco
9	Journal Editors, Louisville
10	Medical Aspects of Sports Committee, Louisville
11	Membership and Placement Services Committee, Louisville
18	Physicians' Health Committee
18	KMIC Board of Directors, Louisville
24-25	Christmas, Office closed

JANUARY

1	New Year's Day, Office closed
13	Journal Editors, Louisville

★

Specialized Service

IN

PROFESSIONAL LIABILITY INSURANCE

is a high mark of distinction

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Donald G. Greeno, Representative
Suite 260, Shelbyville Road Mall Office Center, 400 Sherburn Lane
Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

KMA Sponsors Second Annual Physician Recruitment Fair

More than 150 physicians, residents and medical students attended the second annual Physician Recruitment Fair, October 4, at the University of Kentucky.

Prospective candidates and their spouses were able to visit 40 exhibits representing 55 communities. Those attending had an opportunity to examine both rural and urban practice opportunities during the one-day meeting.

Features included programs geared to teaching communities and hospitals about techniques to use in recruiting physicians to their areas. Also available were the latest statistics on physician motivations in practice locations.

The 1981 Physicians Recruitment Fair will be held at the Ramada Inn/Bluegrass Convention Center, Louisville, next fall and will feature an expanded exhibit hall to offer communities more exhibit space as well as larger isles to accommodate more visitors. Specific workshops on a variety of topics from financial incentives to establishment of primary care centers will be discussed.

Registration at this year's meeting was up by 25% and plans are to double this figure for 1981.



Communities learned recruitment techniques to use in drawing physicians to their areas.



Registration at this year's Fair showed a substantial increase over last year's meeting.



Colorful exhibits representing 55 communities highlighted the Physician Recruitment Fair.



One-to-one contact helped communities sell their opportunities to prospective physicians.

KMA Provides Placement Service To Physicians, Communities

Perhaps you have just completed your internship, residency, or have some other reason for needing to make a change. Perhaps you are a physician in practice and need an associate or replacement. If so, the KMA Physicians Placement Service is available to help you.

The Physicians Placement Service is designed to help physicians find a desirable area in which to establish a practice or to relocate and to help established physicians find associates.

A quarterly listing of "Opportunities for Practice in Kentucky" is published by the Placement Service. This report lists over 100 areas in Kentucky that need primary care practitioners either in association with another physician or as a replacement. The Service maintains a similar listing of areas in need of medical specialists. Opportunities for partnership or group practice are also listed and requests are accepted from both physicians and communities for satisfactory placement.

As an additional service the KMA Physicians Placement Service also publishes, "Physicians Seeking Locations," a quarterly listing. This is compiled from data received from the American Medical Association, requests from recipients of the Rural Kentucky Medical Scholarship Fund, interns and residents in Kentucky, and personal inquiries to the KMA office.

It is the policy of the Placement Service to provide a two-way flow of information between interested parties, rather than try to "place" physicians in the "right" practice situation.

The Service sends a questionnaire to the applicant physician to obtain information on his educational background, his interests, and preference of type of practice. Upon return of the questionnaire, the physician is sent a list of openings in his area of interest. Each opening is detailed on its facilities for home life, office space, proximity to hospital facilities, and other specifics.

Each physician contacting this office for assistance in finding a suitable location for practice is requested to complete a questionnaire in order that his name may be carried on the next listing of "Physicians Seeking Locations."

All qualified physicians who request assistance from the Placement Service are given help. An applicant need not be a member of the Kentucky Medical Association and there is no charge either to the physician or to the community seeking the services of this program.

Inquiries may be addressed to the Physicians Placement Service, Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Martin Gebrow, M.D., Lexington, (606)278-7115
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Ronald L. Kelley, M.D., Paducah, (502)554-1928
Thomas Rothrock Miller, M.D., Lexington, (606) 277-9755
Charles Nichols, M.D., Pikeville, (606) 432-0191
Bruce A. Snider, M.D., Crestview Hills, (606) 341-5014

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

William Andrew Bradnan, Louisville
William F. Clarke, Lexington
John Edward Cotthoff, Hopkinsville
Charles David Feuss, Covington
Edward Lee Fields, Louisville
John Bostian Garrett, Fort Knox
Daniel Charles Gralnick, Goshen
Douglas Martin Haynes, Louisville
William Edwin Hoy, Ashland
Elmo K. Hughes, Pleasure Ridge Park
John Frederick Ice, Louisville
Jamie Jay Jacobs, Lexington
Richard Kendall Jelsma, Louisville
Robert Collin Kratz, Newport
Tse-Hsin Linn, Louisville
James Carl McManis, Lexington
Kirk Deeb Morgan, Prospect
Charles Henry Nicholson, Lexington
Albino Garcia Nunez, Harlan
Javad Najafi Sani, Middlesboro
Theodore Adam Schramm, Louisville
Mohammad Shafii, Louisville
Ranjit Sinha, Morehead
George C. Stege, Shively
George Robert Tanner, Cynthiana
Regulo Jaramillo Tobias, Louisville
Thomas Jeffrey Wieman, Campbellsville

IN MEMORIAM

Carl W. Noble, M.D.
1923-1980
Beattyville

Carl W. Noble, M.D., Beattyville, drowned September 27, 1980, while fishing near Beattyville. Doctor Noble was a general practitioner, and a 1952 graduate of the University of Louisville School of Medicine. He was a member of the KMA for 15 years.

Stewart W. Leonard, M.D.
1905-1980
Louisville

Stewart W. Leonard, M.D., Louisville, died October 1, 1980, at his home. He was a retired surgeon and a 1931 graduate of the University of Louisville School of Medicine. Doctor Leonard was a veteran of World War II and a member of the KMA for 28 years.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

POSITION WANTED

PATHOLOGIST AVAILABLE. Locum Tenens by day or month. Experienced, certified. G. Rich, M.D., (606) 236-7154, Box 72, Danville, KY.

MEDICAL OPPORTUNITIES

NEED LOCUM TENENS to work for me June or July for 4-6 weeks. Residence and car provided to right person. No OB. One night a week night call. Busy daytime family practice. Contact Dr. G.R. Womack, P.O. Box 344, Flemingsburg, KY (606) 849-2323.

FOR SALE

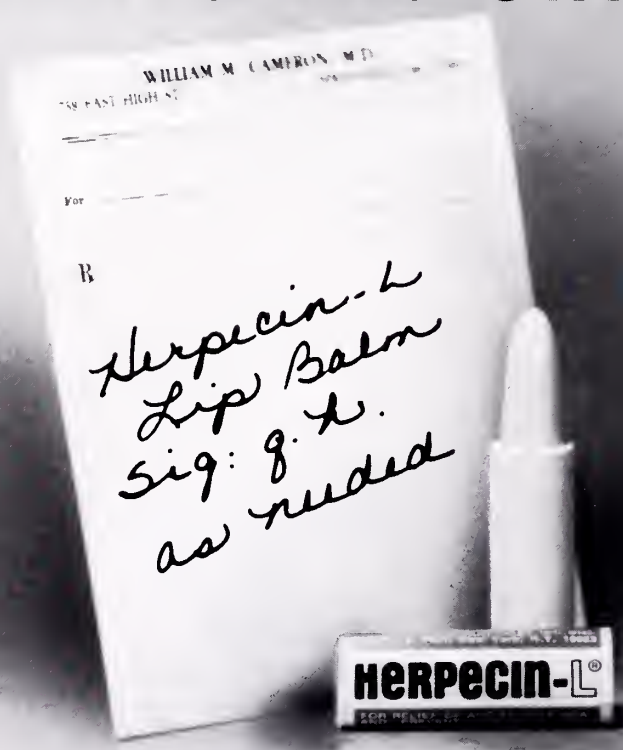
USED OFFICE EQUIPMENT NEEDED. Would like to purchase equipment suitable for Ob-Gyn practice. Contact Andrew Donelson, M.D., 429 Donchester Drive, Bowling Green, KY 42101, (502) 781-1391.

E.N.T. DIAGNOSTIC EQUIPMENT and surgical instruments, chiefly Storz, excellent condition, large assortment, write for list: Joseph H. Saunders, M.D., 1517 Nicholasville Road, Lexington, KY 40503.

Established 1865
Buschemeyer's

WE BUY ALL MEDICAL X-RAY FILM
CALL FOR CURRENT PRICES
KY TOLL FREE 800-292-5991
NATIONWIDE 800-626-4555
515 RIVER CITY MALL
LOUISVILLE, KENTUCKY 40202
PHONE 587-7034 or 587-7342

Dx: recurrent herpes labialis



OTC.
See PDR for
Product Information.

For samples, write:
Campbell Laboratories Inc.
P.O. Box 812-M, FDR Sta.
New York, NY 10150

In Kentucky, "Herpecin-L" Lip Balm is available at all *Begley* and *Taylor Drug Stores* and other select pharmacies.

The William Bailey Memorial Meeting of the Kentucky Medical Association

Ramada Inn, Bluegrass Convention Center, Louisville, Kentucky, September 22-25, 1980

Digest* of Proceedings of the Regular Meeting of the

House of Delegates

Bennett L. Crowder, II, M.D., Hopkinsville
Speaker of the House, Presiding

First Meeting

Speaker Crowder called the 130th Meeting of the KMA House of Delegates to order at 9:20 a.m. and asked Albert H. Joslin, M.D., Owensboro, to give the invocation. He then called on Victor F. Duvall, M.D., Clarkson, Chairman of the Credentials Committee, to give the report of the Credentials Committee. Doctor Duvall reported that a quorum was present. A motion was made, seconded, and carried that the Minutes of the 1979 session of the House of Delegates be approved as published in the December, 1979, *Journal of the Kentucky Medical Association.*

S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer, gave several announcements. He noted that scientific sessions would begin at 8:50 a.m. Tuesday in the Convention Center; and stressed that the highlight of the Annual Meeting, the President's Luncheon, would be held in the Convention Center on Wednesday at 11:50 a.m. Doctor Scheen reminded the Delegates that the Nominating Committee for general offices would meet at the close of the first session of the House, and Reference Committees would convene at 2:00 p.m. Monday in various rooms of the Cenvention Center.

Doctor Scheen read a list of member physicians who had died since the 1979 meeting of the House of Delegates, following which the members of the House stood for a moment of silent tribute. The names of the physicians and their locations are as follows:

Jack D. Albee, Shelbyville
John Young Barbee, Bowling Green
Glen Boles, Louisville
William E. Bowles, Louisville
Leonidas Xerxes Brown, Williamsburg
James E. Bryan, Louisville
Joseph Everette Carter, Louisa
Jack Coyer, Paducah
Joseph Davis, Louisville
Arthur D. Donnelly, Jr., Bowling Green
James C. Drye, Louisville
Irving A. Gail, Lexington
Emery William Garred, Catlettsburg
Horace Harrison, Owensboro
Samuel Oscar Hodges, Lexington
Morris Richard Holtzclaw, Somerset
John Lacy Hopson, Murray
William Todd Jeffries, Columbia
Max Dudley Klein, Shelbyville
Stuart H. Light, Ashland
Albert F. Lyons, Ludlow
Samuel Glenn Marcum, Irvine
Sidney B. May, Eminence
William J. McNabb, Louisa
Adam Miller, Lexington
Jeff Carter Moore, Jr., Franklin
Philip Nodler, Louisville
Errett Pace, Paducah
Donald L. Peterson, McKee
Mason G. Pope, Richmond
Casey J. Purdy, Paducah
Lawrence M. Quill, Williamstown
Harrell Lester Reed, Harrods Creek
Louis Reik, Covington
Billy Joe Riddle, South Shore
Henry M. Rubel, Louisville
Kenneth L. Sears, Lexington
James McKinley Stevenson, Brooksville
Woodford Bates Troutman, Louisville
Lawrence H. Wagers, Hazard
Henry G. Wells, Georgetown
Arthur Welsh (DDS), Louisville
Elwood L. Woolsey, Harlan

** Editorial Note: A tape recording was made of the two sessions of the House of Delegates, and any member who desires to examine the transcript of these proceedings may visit the Headquarters Office and listen to the recordings.*

Doctor Crowder announced that the president of the American Medical Association would make remarks later on the agenda, and turned the podium over to KMA President, Robert S. Howell, M.D., Louisville, to present Educational Achievement Awards to Jacqueline Noonan, M.D., Lexington, and Ulrich F. Westphal, Ph.D., Louisville; and a special award to G. L. Simpson, M.D., Greenville, for his many years of service to the Rural Kentucky Medical Scholarship Fund.

Doctor Crowder announced the Reference Committee appointments as follows:

Reference Committee No. 1

Willis P. McKee, M.D., Shelbyville, Chairman
R. Kendall Brown, M.D., Georgetown
E. Dean Canan, M.D., Louisville
C. Kenneth Peters, M.D., Jeffersontown
R. John Sanders, M.D., Owensboro

Reference Committee No. 2

John W. Kraus, M.D., Paducah, Chairman
David L. Douglas, M.D., Frankfort
Veryl Frye, M.D., Somerset
Van R. Jenkins, M.D., Lexington
Roy J. Meckler, M.D., Louisville

Reference Committee No. 3

James P. Moss, M.D., Louisville, Chairman
Don E. Cloys, M.D., Richmond
Millard C. Loy, M.D., Columbia
N. H. Talley, M.D., Princeton
John E. Trevey, M.D., Lexington

Reference Committee No. 4

Peter P. Bosomworth, M.D., Lexington, Chairman
Walter L. Cawood, M.D., Ashland
William B. Hamilton, M.D., Shepherdsville
C. Ray Potts, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green

Reference Committee No. 5

Fred A. Stine, M.D., Highland Heights, Chairman
Charles M. Brohm, M.D., Louisville
Keith E. Ellis, M.D., Benton
Edwin J. Nighbert, M.D., Lexington
R. D. Pitman, M.D., Williamsburg

Reference Committee No. 6

Edward N. Maxwell, M.D., Louisville, Chairman
William E. Becknell, M.D., Manchester
James S. Brashear, M.D., Central City
Harold T. Faulconer, M.D., Lexington
William B. Monnig, M.D., Erlanger

Doctor Crowder announced that the Tellers for both sessions would be Albert H. Joslin, M.D., Owensboro, Chairman; David C. Liebschutz, M.D., Danville; and Raymond J. Timmerman, M.D., Fort Thomas.

The Speaker then asked Glenn U. Dorroh, M.D., Lexington, Chairman of the Rules Committee, to read the report of the Rules Committee. The Committee's report, as it was printed in the Reports Book, is printed below:

Report of the Rules Committee of the House of Delegates

Recommendations of the Rules Committee are hereby submitted to the first meeting of the 1980 session of the House of Delegates. If these recommendations are adopted by a two-thirds majority, they become effective at the time of the affirmative vote. If any of the recommendations are not adopted, they are to be referred to the appropriate Reference Committee and reported back to the second meeting of the House for further action. This process was established by the House of Delegates in 1978.

At its meeting, the Committee considered two procedural issues, the standardization of rules of the House and two recommendations for rules.

During the second meeting of the House, amendments to Reference Committee reports and resolutions are sometimes suggested that are detailed and difficult to follow when expressed orally. It would serve the convenience of the delegates if such amendments were preprinted and distributed before the report or resolution at issue is discussed. As an administrative matter, the Rules Committee will coordinate the printing and distribution of this material by staff, under the direction of the Committee Chairman. This is not intended to encourage or discourage amendments after Reference Committee reports are out, but to assist the meeting.

The second procedural issue discussed was that any report or recommendation that will require or constitute a change to the Constitution and Bylaws should not be placed on the Consent Calendar of Reference Committee reports. This is to insure that Constitution and Bylaws matters will receive deliberate consideration.

A rules booklet has already been prepared and sent to all delegates. The booklet is simply a collation of rules already adopted, and will, hopefully, serve as a handy reference on the conduct of the House. As new rules are adopted, they will be added to the booklet.

Finally, the Rules Committee has developed two rules that it recommends for adoption which are listed after the main text of this report.

Glenn U. Dorroh, M.D. Chairman

RECOMMENDATIONS

1. Members of Reference Committees are encouraged to express their view, if contrary to the Committee majority, in a minority report, thereby allowing increased opportunity for debate and consideration of the matter in question.

2. Recommendations to the House that will have a fiscal impact should contain a fiscal note or brief description of a predicted fiscal effect.

William B. Monnig, M.D., Delegate from Campbell-Kenton County Medical Society, was recognized who made a motion that the words, "are encouraged to" in the first line of Recommendation 1 be changed to "shall." The motion was seconded from the floor and carried.

(Recommendation 1 of the Report of the Rules Committee is now amended to read as follows: "Members of Reference Committees **shall** express their view, if contrary to the Committee majority, in a

Minority Report, thereby allowing increased opportunity for debate and consideration of the matter in question.")

Doctor Crowder called on Robert S. Howell, M.D. to give a brief Presidential address, following which the other officers gave their reports.

The Speaker then asked the two AMSA Presidents to give their reports. Mr. Mac DeCamp, President of the University of Louisville Chapter of the American Medical Student Association; and Mr. Tim Garner, University of Kentucky Chapter AMSA President, were both present and addressed the House.

Doctor Crowder stated he was pleased to introduce the President of the American Medical Association, Robert B. Hunter, M.D., from Sedro Woolley, Washington, who made several remarks regarding the evolution of health care in the United States.

Doctor Crowder thanked Doctor Hunter for his remarks, and asked Ballard W. Cassady, M.D., Pikeville, President of the Kentucky Medical Insurance Company, to update the members on the status of their insurance company.

David B. Stevens, M.D., Lexington, Senior Delegate to the AMA, gave a report regarding the number of KMA members who were also members of the AMA, and encouraged those Delegates who are not AMA members to join.

The Kentucky Chapter of the American Association of Medical Assistants hosted a coffee break in the lobby for the House members at 10:30 a.m.

The reports of officers and committees were presented by the Vice Speaker and referred to a Reference Committee as follows: (Only the reports of the officers are read.)

Report of the President—Reference Committee No. 1

Report of the President, Auxiliary to KMA—Reference Committee No. 1

Report of the President-Elect—Reference Committee No. 1

Report of the Speaker of the House—Reference Committee No. 1

Report of the Chairman, Board of Trustees—Reference Committee No. 1, except Special Report A, Continuing Medical Education Records, which is referred to Reference Committee No. 2

Dwight L. Blackburn, M.D., Chairman of the Board, stated that he did not wish to read his report, but noted that the Board had issued an addendum to its report as follows:

"The Board of Trustees recommends that Recommendation No. 1 and Recommendation No. 2 of the Report of the Committee on Constitution and Bylaws (No. 37) for amendment to Chapter VI, Section X, of the Bylaws not be adopted; and further recommends that the House of Delegates reaffirm its previous long-standing policy approving service by KMA members, elected officials, and staff on the boards of third-party health insurance carriers, and the contrary action of the House of Delegates adopted in 1979 be rescinded."

Report of the Secretary-Treasurer—Reference Committee No. 1

Report of the Editor—Reference Committee No. 1

Report of the Delegates to AMA—Reference Committee No. 1

Report of the Executive Vice President—Reference Committee No. 1

Report of the Judicial Council—Reference Committee No. 6

Report of the Rural Kentucky Medical Scholarship Fund—Reference Committee No. 6

Report of the President, Kentucky Blue Cross and Blue Shield—Reference Committee No. 4

Report of the Scientific Program Committee—Reference Committee No. 2

Report of the Scientific Exhibits Committee—Reference Committee No. 2

Report of the Continuing Medical Education Committee—Reference Committee No. 2

Report of the Cancer Committee—Reference Committee No. 2

Report of the Maternal Mortality Study Committee—Reference Committee No. 3

Report of the Committee on Maternal and Child Health—Reference Committee No. 5

Report of the Hospital Committee—Reference Committee No. 2

Report of the Committee on Medical Insurance and Prepayment Plans—Reference Committee No. 4, with the exception of the section on page 20.10 and page 20.11 regarding coterminous board memberships, which was referred to Reference Committee No. 6

Report of the Physician-Attorney Liaison Committee—Reference Committee No. 6

Report of the KMA-Kentucky Nurses Association Joint Practice Committee—Reference Committee No. 6

Report of the Claims and Utilization Review Committee—Reference Committee No. 4

Report of the Committee on National Legislative Activities—Reference Committee No. 3

Report of the Committee on State Legislative Activities—Reference Committee No. 3

Report of the Committee on Medicare and Other Governmental Medical Programs—Reference Committee No. 5

Report of the Committee on HSAs—Reference Committee No. 5

Report of the Technical Advisory Committee on Physician Services (Title XIX)—Reference Committee No. 5

Report of the Advisory Committee to the KMA Auxiliary—Reference Committee No. 1

Report of the Committee on Community and Rural Health—Reference Committee No. 5

Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports—Reference Committee No. 5

Report of the Emergency Medical Care Committee—Reference Committee No. 2

Report of the Committee on Health Care Costs—Reference Committee No. 4

Report of the Membership and Placement Services Committee—Reference Committee No. 6

Report of the Interspecialty Council—Reference Committee No. 2

Report of the Committee on Physicians' Health—Reference Committee No. 3

Report of the Committee to Study the Constitution and Bylaws—Reference Committee No. 6

Report of the McDowell House Board of Managers—Reference Committee No. 6

Report of the KMA Advisory Committee to KPRO—Reference Committee No. 4

Report of the Advisory Committee to the Department for Human Resources—Reference Committee No. 5

Report of the Kentucky Medical Insurance Company—Reference Committee No. 1

New Business

New business was presented to the House by the Vice Speaker and referred to the Reference Committee indicated:

A. Resolution from KMA Board of Trustees—Insurance Coverages Sponsored by KMA—Reference Committee No. 1

B. Resolution from Pennyrile Medical Society—Utilization Review Regulations (DHHS)—Reference Committee No. 5

C. Resolution from Pennyrile Medical Society—Physician Membership on the Council on Higher Education—Reference Committee No. 3

D. Resolution from Pennyrile Medical Society—Unified Hospital Inspections—Reference Committee No. 2

E. Resolution from Pennyrile Medical Society—Hospital and Physician Reimbursement by Third Party Carriers—Reference Committee No. 4

F. Resolution from Pennyrile Medical Society—The Medicare (Title XVIII, Part B) Carrier for Kentucky—Reference Committee No. 5

G. Resolution from Pennyrile Medical Society—County Boards of Health and Primary Care—Reference Committee No. 5

I. Resolution from Pennyrile Medical Society—Qualification of Medical School Candidates—Reference Committee No. 2

J. Resolution from Pennyrile Medical Society—Withdrawal from KPRO—Reference Committee No. 4

K. Resolution from KMA Board of Trustees—Associate Membership—Reference Committee No. 6

L. Resolution from Daviess County Medical Society—Certification of Physician Assistants—Reference Committee No. 3

M. Resolution from Campbell-Kenton Medical Society—Regional Poison Control Centers—Reference Committee No. 5

N. Resolution from Jefferson County Medical Society—Procedures for Claims and Utilization Review Committee—Reference Committee No. 4

O. Resolution from Jefferson County Medical Society—Support for University Teaching Hospitals—Reference Committee No. 2

P. Resolution from Pulaski County Medical Society—Reimbursement Levels by the Medicaid Program—Reference Committee No. 5

Q. Resolution from Hopkins County Medical Society—University of Louisville Teaching Hospital—Reference Committee No. 2

R. Resolution from KMA Board of Trustees—Kentucky Medical Assistance Program—Reference Committee No. 5

S. Resolution from Madison County Medical Society—Legal Action Regarding Reimbursement—Reference Committee No. 5

T. Resolution from Medical Student Delegation—Medical Education Facilities—Reference Committee No. 2

Vice Chairman Campbell announced the meeting places for the Nominating Committee and for the trustee districts electing Trustees and Alternates. He stated the Nominating Committee would report at the close of the first scientific session on Tuesday morning.

The physicians on the Nominating Committee were named as follows: Thomas M. Marshall, M.D., Louisville, Chairman; James A. Baumgarten, M.D., Owensboro; James S. Brashear, M.D., Central City; Cecil D. Martin, M.D., Carrollton; and C. Kenneth Peters, M.D., Jeffersontown.

The meeting was adjourned at 11:50 a.m.

Second Meeting

Speaker Crowder called the second meeting of the House of Delegates to order at 6:10 p.m. and asked Paul J. Parks, M.D., Bowling Green, to give the invocation. Doctor Duvall reported a quorum was present.

Doctor Scheen was then called to the podium for announcements and recognition of guests from neighboring state medical associations who had attended the Annual Meeting. Included were: Robert B. Hunter, M.D., President, AMA; Robert G. Thomas, M.D., President, Ohio State Medical Association; George M. Nipe, M.D., President, Medical Society of Virginia; and L. Walter Fix, M.D., President of the West Virginia State Medical Association.

The Speaker briefly explained how items appearing on the Consent Calendar would be handled. Each item on the Calendar would be read individually by the Reference Committee Chairman, and if any member wished to question or debate any topic, he could ask for the floor and would be recognized. If no question was called, it would be taken by consent that all items appearing on the Consent Calendar would be adopted or filed by the House, as indicated.

* Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REFERENCE COMMITTEE NO. 1

Willis P. McKee, M.D., Shelbyville
Chairman

Reference Committee No. 1 considered the following reports and Resolution:

1. Report of the President
2. Report of the President, Auxiliary to KMA
3. Report of the President-Elect
4. Report of the Speaker of the House
5. Report of the Chairman, Board of Trustees, **except** Special Report A—Continuing Medical Education Records
6. Report of the Secretary-Treasurer
7. Report of the Editor
8. Report of the Delegates to AMA
9. Report of the Executive Vice President
29. Advisory Committee to the KMA Auxiliary
41. Report of the Kentucky Medical Insurance Company

Resolution A—Insurance Coverage Sponsored by KMA
(KMA Board of Trustees)

Mr. Speaker, I request the privilege of the floor to make several commendations which have grown out of Reference Committee No. 1's consideration of the above reports.

We wish to thank the people in leadership positions in KMA for their dedicated work.

We would specifically like to commend Doctor Robert Howell for an excellent year of service to the Association.

We would also like to commend Mrs. Gordon Betts for the excellent work of the KMA Auxiliary, and congratulate her on the continuing expansion of this organization.

The Committee would like to commend Doctor Randolph Scheen for another year of dedicated service as Secretary-Treasurer.

We also would like to thank the AMA delegates for their excellent work on behalf of the Association.

We also wish to commend Executive Vice President, Robert G. Cox, for another year of a job well done.

Finally, the Committee would like to commend the Speaker and Vice-Speaker of the House for their efforts in expeditiously conducting the Annual Meeting.

ITEMS FOR CONSENT

Reference Committee No. I reviewed the following items and recommends that they be adopted or filed as indicated, by the consent of the House, without discussion:

1. Report of the President—filed
2. Report of the President, Auxiliary to KMA—filed
3. Report of the President-Elect—filed
4. Report of the Speaker of the House—Adopt
5. Report of the Chairman, Board of Trustees, **except** (Special Report A—Continuing Medical Education Records)—Adopt
6. Report of the Secretary-Treasurer—filed
7. Report of the Editor—filed
8. Report of the Delegates to AMA—filed
9. Report of the Executive Vice President—filed
29. Advisory Committee to the KMA Auxiliary—filed
41. Report of the Kentucky Medical Insurance Company—filed
    Resolution A—Insurance Coverage Sponsored by KMA (KMA Board of Trustees)—adopted

Resolution A was reviewed by the Committee and there was considerable comment from the floor, all favorable to the Resolution. Therefore, the Committee recommends that Resolution A be adopted.

The Chairman of the Board of Trustees, Dwight L. Blackburn, M.D., Berea, was recognized, who stated that the Board of Trustees recommends that Item 3, first paragraph, page 5.8, of the Report of the Chairman, Board of Trustees, dealing with the subject of coterminous membership on various boards, be **filed,** and further recommends that the remainder of the report of the Chairman of the Board (with the exception of Special Report A) be adopted.

The motion was seconded from the floor and carried. A motion was then made, seconded, and carried that the remainder of the items on the Consent Calendar be adopted or filed as indicated.

Report of the President

For personal reasons, I decided to take a different tack this year in presenting your President's Report. Having served only briefly as a member of the Board of Trustees when called upon to serve as President-Elect, my familiarity with the involvement of KMA in the medical field was somewhat limited. Now, with the conclusion of my term as President, I have grown to an understanding and appreciation of KMA as an organization, the leadership as individual physicians, and the staff as devoted and capable employees, all dedicated to the preservation and enhancement of the practice of medicine.

KMA activities are practically unlimited and truly complex. Because of the demand for expediency in dealing with a myriad of important issues, the luxury of total membership input is in many cases precluded. However, no organization realizes progress if it pleases everyone all the time, on all issues. For this reason, I appreciate why some of our members do not completely understand the true role of our professional association. While KMA is a group of individual personalities, its policies reflect the opinion of the majority, and what could better serve our purpose and needs?

Some unpopular but prudent decisions must be made, but this is necessary if our profession is to benefit. We must stand up for what we think is right, and accept, for the present at least, the majority opinion. Any difference in philosophies should be viewed as building blocks to a stronger future, not as barriers of separation.

If I came to this job apprehensively, I assure you I leave it with a better understanding of what we are and where we are going. Things we have taken for granted in the past, and problems we will confront in the future, are being dealt with and resolved. If I have assured your faith and support in the only professional organization we have representing us as a group, then I consider my job well done.

Every organization exists to serve its members, and the KMA is no exception. Its reasons for existence are as valid today as they were in 1851. KMA exists to serve:

YOU . . . and it has since your first thought of medical school, before that, and since then;

The INDIVIDUAL PHYSICIAN . . . and it has since its formation;

The PROFESSION . . . and it has for 129 years, and with greater efficiency today;

The PUBLIC . . . and with consistent continuance.

Your KMA has matured over its 129 year history in order to face the challenges in medicine. Today's Kentucky Mediucal Association

- Owns its own Headquarters Building and has assets of $2 million.
- Operates on an annual budget of $1 million.
- Functions daily with an excellent staff of 25 dedicated individuals serving our needs in most every facet of our daily professional lives.
- Operates an in-house printing function that produces nearly two million printed sheets yearly for the Association, its related groups and the membership.
- Routinely administers 10 individual associated groups from the Headquarters Office.

In addition to KMA, other organizations housed and/or totally staffed by KMA include:

- The Rural Kentucky Medical Scholarship Fund, which has loaned $2.38 million to students.
- The Board of Medical Licensure.
- The McDowell House—a national historic landmark in Danville.
- The Kentucky Educational Medical Political Action Committee (KEMPAC)
- The Auxiliary to KMA.
- The Kentucky Postgraduate Medical Education Fund.
- The Kentucky Foundation for Medical Care.
- The Kentucky Medical Insurance Company.
- The KMA Insurance Agency, Inc.

Through the years we have grown and diversified in order to serve you, the member, the profession, and the public.

It overwhelmed me just to observe the day-to-day operation at our Headquarters Office: Incoming mail that must be read, acted upon and responded to; continuous telephone calls keeping eight phone lines constantly busy; visitors, members, newly licensed doctors, students, suppliers, Auxiliary members and others stopping by the office; planning that goes into the small committee meeting . . . a daily routine dedicated to the enhancement of Kentucky medicine.

Your elected governing body works hard and long, giving freely of their time and talents with their only compensation being that feeling of making a contribution to a profession that has given so much to them. These people deserve a great deal of praise for the sincerity and determination to represent their constituents.

The prime governing body of the Association is the House of Delegates, but operating authority is delegated for decisions that must be made on a moment's notice. Your Board of Trustees acts for the House between sessions; the Executive Committee acts for the Board, as necessary; and the Quick Action Committee, composed of four officers, acts for the Executive Committee, when indicated. Because timeliness is critical in today's world, we are prepared to act promptly in your behalf.

Our committee structure remains the backbone of the KMA. Some 50 committees meet routinely in order to execute the programs, projects, and activities that directly or indirectly affect each of us.

As President, one of my main goals has been membership awareness of what KMA does on their behalf. A Corporate Visitation Program was created to meet with leaders of our major industries. These executives have been found to be good friends of medicine, but not without problems we can help solve.

We are working on a Speaker's Bureau. It is time to stop talking among ourselves about what we have done in areas such as technological advancement, cost stabilization, a better quality of life and the prospects for a longer, healthier life span for the people of this country. To insure that our voice is heard and our credibility maintained, we must translate our story to those people who influence public opinion.

In an effort to improve communications with individual members, and give everyone an opportunity to better know their Association's leaders, we have instituted some changes in the "Communicator" and the *Journal.* I am submitting a separate report on the activities of our Association. Hopefully, you will take the time to read it and remember to use it as a reference the next time someone asks you what KMA does for them.

In order to meet the demands placed upon us by our ever-changing society, and the resulting impact on the medical profession, the KMA is growing faster now than at any time in its 129 year history. Your Association deserves your solid support, as does your county society and the American Medical Association. Only through the Federation of organized medicine at every level will we be able to cope with today's problems and pave the road to a stable future. In comparison to almost any other group, including labor, our professional dues are a rather insignificant amount. Yet, I am confident our dues dollars generate more return professionally than any other investment we make in our medical careers.

As I gaze into the immediate future, I see KMA accelerating activities in some very important areas. We will continue to take an aggressive position as advocates of the profession in all arenas. More emphasis must be placed on Public Relations, not only within our membership, but with the general public as a whole. It is also obvious that more and more is happening that involves the legal profession in our affairs.

Growth of this type requires staff, equipment, and space availability to get the job done. KMA's Headquarters Office is already at full capacity, and an Ad Hoc Committee is presently studying future space requirements.

It has been an interesting and rewarding year for me as your President. It has been a learning experience I will never forget.

Thank you for allowing me the privilege of serving. I urge you to join me in helping to build an ever stronger Association, for it is to the benefit of our profession and those we serve.

Robert S. Howell, M.D., President

Report of President, Auxiliary to KMA

The theme for this year has been "WE CARE." At the risk of sounding idealistic, I asked auxilians when the year began to put something of themselves in their auxiliary work—to "put their hearts in it." My thought has been that we need to start at the grass roots level—with ourselves—to generate a more positive image of our own organization and of the medical profession we so often represent. While this is hard to measure, I hope we have made some progress and that each of us will keep this basic "caring" in mind as we move into a new decade and a new auxiliary year.

Nationally, the thrust of the American Medical Association Auxiliary's program has been one of preventive medicine—specifically, modification of lifestyle through good nutrition, exercise, and the giving up of harmful habits. At the 1979 AMAA Convention, the two-year "Shape Up For Life" campaign was launched. In keeping with this, Kentucky began its own effort at its State Leadership Conference, held at the old Talbott Tavern in historic Bardstown on August 28. Mrs. Thea Spatz of the University of Arkansas presented their "Think Health" program which promotes the development of more healthful lifestyles. The meeting was very successful, with 116 attending—a healthy increase over the previous leadership meeting. After hearing Mrs. Spatz and taking our own individual health risk test, each auxilian attended the workshop of her choice in the areas of membership, AMA-ERF, legislation, health projects, and general fund raising.

Fall Board Meeting was held in Louisville once again at the Ramada Inn in conjunction with the Kentucky Medical Association Annual Meeting in late September. Highlights of the meeting included an address by AMA President, Doctor Hoyt Gardner, and greetings from the Dean of the U of L Medical School, Doctor Arthur Keeney, and the Dean of the UK Medical School, Doctor Kay Clawson. Both Deans thanked the auxiliary for their efforts in raising money for the AMA-ERF and explained how it had been used at the schools. (Checks for the AMA-ERF funds raised are presented to the medical school deans or their representatives each year in the spring.) Also at our Fall Board Meeting was Doctor David Stewart from the KMA Physician's Health Committee who spoke to us on the Impaired Physician, requesting the auxiliary's awareness of and help with this program.

In October, five county presidents-elect, the state president-elect and the president attended the national auxiliary's Confluence in Chicago. This is an outstanding group of health-related seminars and leadership workshops. Upon returning, the participants reported on each program, and this information packet was mailed to every county auxiliary in Kentucky. A small national meeting for state presidents, presidents-elect and nominated presidents-elect was held in Chicago in February. Kentucky was represented at each level, and all found it a valuable sharing, learning and planning time with other states.

The auxiliary held its next statewide meeting in late February—the semi-annual Legislation Day in Frankfort. The day's events included coffee at the Lt. Governor's Mansion, a tour of the Old Statehouse and a visit on Capitol Hill if desired. The main event was a luncheon, with county auxilians hosting their own legislators and their wives. Inviting the spouses of the legislators was a new idea this year and seemed to be well received. Because of snow the night before, attendance was not as large as hoped, and the auxiliary plans to re-think the Legislation Day event and present some new ideas for it in the coming year. I would like to add that at the beginning of the auxiliary year, AKMA requested $100 from KMA to help fund the expenses of Legislation Day. This was approved by the KMA Executive Committee, and the Auxiliary is most appreciative of this additional financial support. Also, the auxiliary Legislation Chairman has been invited to meet with the KMA's legislation group at regularly scheduled meetings throughout the year and also to attend, with the AKMA president and president-elect, the KMA's Annual Legislation Dinner in Washington. We hope this and other areas of working together can be enlarged upon in the coming year.

The final state meeting of the year was the AKMA Convention held at Lake Cumberland State Resort Park in Jamestown on April 21-23. Special guests were Doctor Robert Howell, KMA President, who spoke at our luncheon, and Mrs. John Bates (Glenda), the Southern Regional Vice President of the AMAA, who installed the 1980-81 AKMA officers. After the installation dinner, Mr. Joe Washington, Kentucky's 1980 Teacher of the Year, presented a program on "Shaping Up," which introduced the theme for the coming year, "Prescriptions for Healthier Living."

As I write this, I am preparing to attend the AMAA National Convention in Chicago to report on Kentucky's year—but I would like to include something about last year's AMAA and AMA Con-

ventions, since they were such special ones for Kentuckians! We were honored to see Mrs. Hoyt Gardner (Rose) installed as AMAA Treasurer and her husband, Doctor Hoyt Gardner, installed as President of the AMA. On this occasion, AKMA presented Dr. Gardner with a lovely oil painting of the McDowell House done by Mrs. Joseph Caldwell (Evelyn), a Lexington auxilian. Prints of this painting have been sold throughout the year as an onging project of the Fayette County Auxiliary, with all profits going to the McDowell House. To date, this project has netted $3700 for the auxiliary's McDowell House Refurbishing Fund.

During my years as AKMA President and President-Elect, I visited 27 of Kentucky's 29 county auxiliaries, bringing major thrusts of the auxiliary program directly to them. Their response has been to "care enough" to make the 1979-80 year an excellent one in many areas besides the above. Our AMA-ERF contribution this year totaled $24,902.33, a high to date. Membership increased to a new record of 1543 members, and a state membership brochure was developed to provide information for prospective members. Our counties participated in well over 100 health projects, the most popular being blood donor and CPR programs. They have initiated 17 new health-related programs this year and have worked with numerous private and public agencies functioning in the state. County auxiliaries gave 32 health careers scholarships or loans, a dollar amount of $21,500. The state auxiliary also has a health careers loan fund and this year gave $6000 to six students. All of these figures represent an increase over last year's totals, and we are hopeful of continuing these upward trends.

KMA's long-standing financial support and guidance, as well as the courteous assistance of the entire KMA staff, have been greatly appreciated throughout the year. It is the auxiliary's hope that this cooperation and communication can be increased each year so that it can better serve its parent organization. It has been a worthwhile year and a real honor to serve as President of the Auxiliary to the Kentucky Medical Association.

Mrs. Gordon Betts, President

Report of the President-Elect

As President-Elect of the Kentucky Medical Association, it has been my opportunity to observe the organizational and staff structure, to plan for continuation of existing programs and to develop and expand new and planned programs within the framework of the organization.

It is my desire that we continue the positive Public Relations Program initiated by this year's President, Doctor Robert Howell. All phases of the Public Relations Program will be continued and expanded with involvement of all members of KMA Staff and the Membership.

In the planning stage is a Leadership Conference. This Leadership Conference is currently planned for early April. The Conference will bring together KMA Officials, County Society Presidents, Secretaries and other officers. This Conference will provide an update for the medical leaders on active and ongoing problems besetting organized medicine. It will also allow for a free exchange of ideas and concepts so that medicine can address current issues.

Health Planning is now mandated by law and is a reality. A series of many conferences sponsored by KMA on Health Planning issues is planned. It is hoped that all parties concerned with Health Planning, such as state officials, government health planning organizations, insurance carriers, state agencies, hospitals and medicine, can study the issues on health planning and project an organized reasonable approach for medicine.

In conjunction with the Public Relations Program an Active Physician Recruitment Program for involvement with KMA and AMA will be continued. Each physician who is now not currently a member of KMA or AMA will be contacted for affiliation.

An active traveling year is anticipated in which we intend to make contact with each major hospital staff and county medical society within the Commonwealth to better coordinate medicine's promotion and well-being.

Frank Pitzer, M.D., President-Elect

Report of the Speaker and Vice Speaker of the House of Delegates

Your Speaker and Vice Speaker of the House of Delegates would like to take this opportunity to thank each of you for your support and cooperation during the past year.

Your Speakers hope that unity and solidarity within the Association will continue to be a major strength.

The KMA staff continues to be outstanding and throughout the year provided help and assistance, and their efforts on our behalf have certainly made our job easier.

We again have had difficulty in appointing Reference Committees due to the late reporting by county societies of the names of their Delegates and Alternates to the KMA. This report should be in by June of each year.

A new format for presentation of Reference Committee reports consistent with the AMA format was used at the 1978 and 1979 Annual Conventions, and was considered to be helpful in facilitating the flow of business. By action of the 1978 Convention, a Rules Committee was established, and the Committee helped facilitate the flow of business through the past two Annual Conventions.

The Rules Committee has developed a booklet which is included in the Delegates' packet to provide further information regarding the House of Delegates. This year your Speakers, along with Doctor Glenn Dorroh (Chairman of the Rules Committee) and other members of the Committee, will present a Delegates Orientation Program on Sunday afternoon preceeding the Annual Convention. If this orientation is as successful as we hope it will be, this may become, at the pleasure of the House, an annual event.

These matters will be brought to the attention of the House of Delegates at the first meeting of the House for their consideration.

We thank you sincerely for the opportunity to serve.

Bennett L. Crowder, II, M.D., Speaker
Peter C. Campbell, Jr., M.D., Vice Speaker

RECOMMENDATIONS

1. It is recommended that the Delegates Orientation Program be conducted preceeding the Annual Convention as a part of the official proceedings.

Report of the Chairman of the Board of Trustees

Introduction

Your Kentucky Medical Association has existed to serve the physicians of the Commonwealth and our patients for the past 129 years. Having been in a position this past year to closely observe your Board members, the committees at work, the staff, the unexpected crises that arise, and the routine day-to-day business, I feel the commitment to serve has never been stronger.

This has been a year of good performance, growth, and preparation for the future. The 1980s will bring us a continuation of many forces which we have faced in the past, and will present some new problems with which we must deal in the future. It was a state legislative year and a somewhat different year in monitoring national

legislation since it is a Presidential election year. The Quick Action Committee met almost weekly during the State Legislature and otherwise communicated on an almost daily basis.

Our annual trip to the nation's Capital drew a record attendance with approximately 50 KMA representatives visiting with our Congressional Delegation. One evening was devoted to a special dinner in honor of Doctor Tim Lee Carter who is retiring this year following his service as our Fifth District Congressman since 1964. Doctor Carter has served his profession and his constituency in an exemplary fashion and is most deserving of our praise. He will surely be missed by us, his colleagues, and all those he has served so well.

President Howell has placed more priority this year on health education of the membership and the public. He has initiated new projects in this area and has met with business leaders to discuss all aspects of health care. His leadership will no doubt inspire us to continue in the direction he has pointed.

At the request of the House of Delegates, new efforts are underway to assist the specialty societies with administrative services, and one full-time individual has been employed for this purpose. The Kentucky Medical Insurance Company had its first birthday on June 1 and is growing rapidly toward being the largest liability insurance company in the state. These growing pains—to serve us better—have the Headquarters Office buldging at the seams and plans to better meet our space requirements are underway.

Annually the Chairman of the Board reports on the status of the Legal Trust Fund. During the current Associational year, no expenditures have been authorized from the Fund, and the current balance is $55,191.41. Comments on the Liability Insurance Assessment Fund, authorized by the House of Delegates in 1975, are made elsewhere in this report.

Summary of Board Meetings

First Meeting, September 27, 1979

Acting as temporary Chairman, KMA Secretary-Treasurer, S. Randolph Scheen, M.D., introduced the newly-elected members of the Board of Trustees and the new officers: Frank R. Pitzer, M.D., Hopkinsville, President-Elect; Richard J. Menke, M.D., Crestview Hills, Vice President; Henry R. Bell, M.D., Elkton, Trustee, Third District; William P. McElwain, M.D., Lawrenceburg, Trustee, Seventh District; and Robert E. Smith, M.D., Covington, Trustee, Eighth District.

The Board then elected the Executive Committee members to serve with the President, President-Elect, Vice President, and Secretary-Treasurer for the 1979-80 Associational year. Chosen as Board Chairman was Dwight L. Blackburn, M.D., Berea; and William T. Watkins, M.D., Somerset, was selected as Vice Chairman. R. J. Phillips, M.D., Owensboro, and Richard F. Hench, M.D., Lexington, were also named to the Executive Committee.

Elected to serve on the Board of Directors of the Kentucky Foundation for Medical Care was Earl P. Oliver, M.D., Scottsville.

Elected to the KEMPAC Board were James E. Anderson, M.D., Owensboro, Second District; Edward C. Shrader, M.D., Louisville, Third District; Raymond J. Timmerman, M.D., Ft. Thomas, Fourth District; and John C. Cheshire, Jr., M.D., Sixth District.

The Board reviewed the Executive Committee's recommendations for committee personnel, made appropriate changes and additions, following which committee membership for the 1979-80 Associational year was approved.

A decision was made that KMA hold its 1980 Annual Meeting at the Ramada Inn/Bluegrass Convention Center. It was also tentatively agreed to hold the 1982 Annual Meeting at the Hyatt Regency Hotel in Lexington.

Before adjourning, the Chairman set the date of the next Board of Trustees' meeting as December 12-13, 1979, at the KMA Headquarters Office in Louisville.

Second Meeting, December 12-13, 1979

The KMA Board of Trustees met in regular session on December 12 and 13, 1979. Routine announcements were made, and the Board Chairman notified the Board members that W. Grady Stumbo, M.D., had been named by Governor John Y. Brown, Jr. as the new Secretary of the Department for Human Resources.

The Minutes of the meetings held during the 1979 Annual Meeting were approved, and Robert S. Howell, M.D., KMA President, gave his report which emphasized possible public relations efforts KMA might consider. It was decided that the Quick Action Committee would select a date for a special Board meeting where representatives of a Virginia PR firm could outline ideas for a public relations program.

Routine reports were given by the Secretary-Treasurer, Senior Delegate to AMA, and President of the State Board of Medical Licensure.

Numerous committee recommendations were received, and actions were taken relating to them as follows:

- That KMA, per the recommendation of the Executive Committee, associate only with the AMA in CME accreditation matters.
- Calling for reaffirmation of the state Voluntary Effort Committee's work toward achieving results that will have an impact on the rate of increase in health care expenditures.
- That the Kentucky Society of Internal Medicine be a member of the KMA Interspecialty Council.
- The names of D. Kay Clawson, M.D., Lexington, and David B. Stevens, M.D., Lexington, were submitted for nomination to the AMA Liaison Committee on Graduate Medical Education and the Council on Long-Range Planning, respectively.

The Board ratified the appointment of the Ad Hoc Committee on Medical Ethics, and appointed the Committee on Medical Insurance and Prepayment Plans. Several policies recommended by the Executive Committee at its meeting November 1, 1979, were adopted by the Board relating to Voluntary Retirement, Sabbatical Leave, Student Members, and the KMA Liability Insurance Fund.

It was noted that the House of Delegates, in September 1978, approved the Chairman of the Board's report authorizing purchase of up to $70,000 in stock in the Insurance Company and Insurance Agency, and authorized up to $100,000 in loans. (In actuality, $20,000 in stock was purchased: $10,000 in the Company and $10,000 in the Agency; and $70,000 in loans was made, of which $17,500 was to the Company and $52,500 was to the Agency.)

When these loans are repaid, the Board noted its intention that the monies be placed in the general account for housekeeping purposes and to close out the current books on the Liability Assessment Fund. The Fund's balance prior to the loans being made was $36,310.67. I urge the House to affirm this Board action. The Minutes of this Annual Meeting will then record that $36,310.67 will be available for future use to resolve liability insurance problems by KMA.

It is predicted that new crises are forthcoming and future expenditures made from this balance should then be reported by the Chairman of the Board to the House of Delegates for the Associational year during which such expenditures were made.

Doctor Blackburn reported that the Executive Committee had spent considerable time discussing amendments passed by the 1979 House of Delegates to the Report of the Ad Hoc Committee on Insurance Procedures and Primary Care Reimbursement, and that the author of the amendments had attended the Executive Committee meeting. Doctor Blackburn then reviewed in detail the observations and recommendations of the Executive Committee, and this report was accepted by the Board.

A discussion was held concerning the three recommendations of the report of the Committee on Medicare and Other Governmental Medical Programs to the 1979 House of Delegates. It was the con-

sensus of the Board that these recommendations reaffirm existing KMA policy that reimbursement be based on the individual physican's profile, or "no area."

Third Meeting, February 28, 1980

The Board of Trustees met in special session on February 28, 1980, for the primary purpose of considering a Public Relations program for the Association outlined by the President, Robert S. Howell, M.D., Louisville.

Doctor Howell presented a slide presentation he had produced entitled, "KMA Public Relations Ten-Point Program" which highlighted avenues the Association might take to enhance its relations with its members and the public. Following Doctor Howell's presentation, the Board appointed an ad hoc committee to work with Doctor Howell on this project, and to make priority recommendations to the Board.

The Chairman of the Committee on State Legislative Activities, Carl Cooper, Jr., M.D., Bedford, updated the Board members on the status of legislation affecting the medical profession currently under consideration by the 1980 Kentucky General Assembly. Doctor Cooper stated that a detailed discussion of all legislation would be conducted at the meeting of the Committee on State Legislative Activities following the Board meeting, and invited the Board members to attend.

The Board approved a request of the Committee on School Health, Physical Education, and Medical Aspects of Sports to assist the University of Kentucky administratively and financially with the 1980 Medical Aspects of Sports Symposium, and granted approval for the Committee on Continuing Education to change its fee structure for accreditation and co-sponsorship. The Board also agreed that the HSA Committee should conduct a series of educational seminars.

In other action, the Board accepted for information Nurse Practitioner Liaison report from the Jefferson County Medical Society; approved a request of the Auxiliary to conduct a CPR class during the 1980 KMA Annual Meeting; referred a request for endorsement of a Cancer Detection Program for Kentucky to the Cancer Committee Chairman; and voted to request additional information from the Visiting Nurses Association regarding a grant request.

The next regular meeting of the Board of Trustees was set for April 2 and 3, 1980, in the KMA Headquarters Building.

Fourth Meeting, April 2-3, 1980

The KMA Board of Trustees met in regular session on April 2-3, 1980, in the KMA Headquarters Office in Louisville. Routine reports were given by the President, Secretary-Treasurer, Senior Delegate to AMA, Chairman of the Committee on State Legislative Activities, and Secretary of the Board of Medical Licensure.

Ballard W. Cassady, M.D., Pikeville, Chairman of the KMA Budget Committee, was in attendance to review the proposed Budget for the 1980-81 fiscal year. Following his presentation, the Budget was adopted as proposed. President Howell introduced Mrs. Barbara Cox, President-Elect of the Auxiliary to KMA, to present AMA-ERF checks to representatives of the two medical schools. Mrs. Cox presented a check in the amount of $13,509.11 to Donald R. Kmetz, M.D. for the University of Louisville; and a check in the amount of $4,140.58 to D. Kay Clawson, M.D. for the University of Kentucky.

Lawrence Guzzardi, M.D., Lexington, reviewed the AMA Jail Project and sought KMA's participation in the project at the state level. The discussion concluded with the Board members asking Doctor Guzzardi to prepare a document outlining more details of the project which they could review before making a decision.

The Board considered several matters referred by the Executive Committee including indicated action on a matter involving the threat of a lawsuit against KMA; investigation of association liability coverage; and acceptance of the Quarterly Report of the Committee on Continuing Medical Education.

The Board selected names for submission to several councils, committees, and boards, including the HSA West Board, HSA West Appropriateness Review Committee, SHCC Board, State Board of Medical Licensure, Medical Laboratory Advisory Committee, and Rural Kentucky Medical Scholarship Fund Board of Directors.

The Chairman of the Ad Hoc Committee on Medical Ethics, J. Campbell Cantrill, M.D., was also in attendance to present the report his Committee had drafted following several meetings and an open hearing on the subject of the AMA's Principles of Medical Ethics. The Board accepted the Ad Hoc Committee's report and asked that it be submitted to the AMA for consideration. A Resolution concerning blood banks was also adopted by the Board with a request that it be submitted to the AMA House of Delegates.

Earl P. Oliver, M.D., Chairman of the Committee on Medical Insurance and Prepayment Plans, submitted five recommendations for which the Committee was seeking Board approval. They were: 1) Recognition of the Committee as a liaison between the KMA Board and third party health insurance carriers; 2) Reappointment of the same Committee members for 1981, at which time a rotational system will be implemented; 3) Referral to the Committee on Constitution and Bylaws the opinion that KMA members or staff should not be prohibited from serving coterminously on the KMA Board and the boards of third-party health insurance carriers in an ex-officio capacity; 4) Allocation of funds to mail a pamphlet on health insurance; and 5) Establishment of a speaker's bureau to provide speakers to various communities on the subject of Medicare.

The Board voted to accept the recommendation of the Executive Committee that a Resolution be submitted to the House in September, 1980, endorsing PICO's proposal to market other lines of insurance in Kentucky.

A Resolution was also adopted directing the KMA Secretary to vote KMA's stock in the Kentucky Medical Insurance Company by submitting the names of nine physicians selected by the KMA Board for appointment to the KMIC Board.

The Board was provided with detailed information on actions of the Kentucky General Assembly, and discussed S.B. 53, Equalization of Medicaid Payments, and actions taken as a result of the 1979 Report of the Committee on Medicare and Other Governmental Medical Programs. It was noted that the Officers of KMA have been meeting with the Secretary for Human Resources, W. Grady Stumbo, M.D., and appropriate lines of communication seem well established.

The next session of the Board was scheduled for August 6-7, 1980.

Fifth Meeting, August 6-7, 1980

The fifth meeting of the Board of Trustees was held in Louisville on August 6-7, 1980. One of the main purposes of this meeting was to review the reports of the committees and the resolutions to be submitted to the House of Delegates.

President Robert Howell presented a detailed report on his recent activities and those of the Association. A portion of his report related to peer review and a special ad hoc committee was formed to address the issues of peer review and to establish guidelines to assist the Association in its peer review activities, recognizing that local, regional, and state claims and utilization review committees, grievance committees, the Judicial Council and the Licensure Board all had a role to play, and that more specific guidelines for the overall conduct of business were desirable.

President-Elect Frank Pitzer then outlined plans for a KMA Leadership Conference to be held during his tenure of office in connection with the April, 1981, Board of Trustees' meeting. These plans were adopted.

Other reports included those of the Headquarters Office by the Secretary-Treasurer, and a full report on the AMA Convention was given by the Senior Delegate to the AMA, at which time tribute was paid by the Board members to Doctor Hoyt Gardner of Louisville, the outgoing president of the American Medical Association.

Kentucky's new Commissioner for Health Services, David T. Allen, M.D., was in attendance and discussed programs by his Department and the Department for Human Resources to include an interim report on discussions to convert Medicaid reimbursement into a single payment area for Kentucky.

A report on the Board of Medical Licensure was made by Doctor Frank Gaines, and Doctor Gabe Payne presented his final report to the Board as president of the Kentucky Peer Review Organization.

Additionally, a complete update was heard regarding the progress of the Kentucky Medical Insurance Company. KMIC's executive vice president, Riley Lassiter, also reported that KMIC had repaid $7,000 of the $17,500 loaned to the Company by KMA, and that the KMA Insurance Agency had repaid $21,000 of the $52,500 loaned to the Agency.

A presentation of bound KMA *Journals* was made by President Howell to immediate past president Carl Cooper, and to *Journal* Editor, A. Evan Overstreet, M.D.

A number of actions and recommendations from the Executive Committee were presented to the Board for final disposition. These related the plans of committees, government programs, and nominations for state government councils. The Board also approved the nomination of Doctor Glenn Bryant for submission to the House of Delegates for re-election to the Judicial Council.

Following a discussion of the KMA Annual Meeting plans, the Board then reviewed some 30 committee reports to be submitted to the House of Delegates. No recommendations for changes were made in the committee reports.

Announcements were made that the KMIC Board of Directors and the KMA Insurance Agency Board of Directors would meet on Thursday, September 25, and the next meeting of the KMA Board of Trustees was set for Sunday, September 21.

Executive Committee

The eight-member Executive Committee is composed of both officers and trustees. They meet between Board sessions to assist in the day-to-day operations of KMA, devote much time to the Association, and are available on short notice.

The Executive Committee met six times during the Associational year and resolved many issues while making recommendations to the Board when time permitted or as the subject matter dictated. Additionally, the Executive Committee closely monitors the committee system and often meets personally with allied groups, government representatives, and/or individuals who may have an impact on the profession in Kentucky.

Four officers comprise the Quick Action Committee which is KMA's smallest group to meet and set policy for the Association when such action is indicated. The President, President-Elect, Board Chairman, and Secretary-Treasurer meet "on call" to make on-the-spot decisions and meet routinely during the Legislative Session to direct, with the Legislative Committee, the day-to-day position of KMA on legislative issues. The Quick Action Committee met frequently during this Associational year.

Ad Hoc Committees

Ad Hoc Committees were utilized by the Board of Trustees this year on 1) Headquarters Office Building, and 2) Medical Ethics.

With the Kentucky Medical Insurance Company as a tenant, and with the growth of services provided by KMA, a problem of usable floor space was studied by the Ad Hoc Committee on the Headquarters Building. The study includes alternate approaches to the problem, along with the possibility of an addition to the building. Coordination with a similar committee of KMIC is underway. No definite action was recommended as of this writing, and should such occur, it will be presented in an addendum report.

At the direction of the House of Delegates, an Ad Hoc Committee on Medical Ethics was formed to assist KMA with input into changes to the Principles of Medical Ethics of the American Medical Association. The Committee held a hearing in Louisville for KMA members, arrived at a conclusion, and presented it to the Board of Trustees. The Board's position was then forwarded to the AMA and our Delegates were prepared to discuss it at the AMA Convention. The Reference Committee will be provided with further details.

At the August Board meeting, two additional ad hoc committees were appointed; one to study peer review activities and the other to study physician assistants. As of this writing, neither group has had sufficient time to complete its work.

CONCLUSION

Thank you for the privilege of serving as your Board Chairman this year. My gratitude is extended to every Board member who gives much back to the profession through service in organized medicine. A considerable amount of time and effort is spent by your committees and Board members on behalf of the profession. My thanks goes to each of them and to the House of Delegates for your consideration of our report.

Dwight L. Blackburn, M.D., Chairman

Report of the Secretary-Treasurer

Routinely, in the Annual Report of the Secretary-Treasurer to the House of Delegates, I attempt to recap the highlights of our corporate and internal activities. These activities, in this report, may appear to be routine and, in truth, very many of the things that take place at KMA are very typical, day-to-day matters. Not withstanding what may be perceived as mundane efforts, so much that is done is vital to our operation, and the very fact of its being routine makes it all the more important.

A stark presentation of the numbers of miles traveled by Officers, Board of Trustees members, committee members and staff, and hours spent on behalf of KMA, doesn't begin to give a true picture or allow an opportunity for a true appreciation of everything that is done for our organization. It can only be said that the sheer physical time and effort spent is monumental.

From a corporate standpoint, it is difficult, too, to recap a good bit of the involvement as it is discussed in other places in the reports of the various committees. However, the administrative efforts and resources necessary to support, develop and implement this work must all be coordinated, which requires the involvement of all departments and individuals inside the Headquarters building.

There are some notable highlights that should be addressed here, for your information. Thanks to attention to cost savings efforts and attention to areas of spending, we have been able to continue our work and, again, even increase it over the past year, within our current budget and dues structure. I am proud to report that we have satisfactorily maintained our solvency but, as was mentioned last year, this has been by considerable effort in the face of inflation and the costs of outside goods and services, over which we have no control.

Internally, our equipment and building and grounds have sustained normal wear and tear, but proper maintenance and prudent repair and replacement have maintained these items in satisfactory state.

With the increased attention to specialty society services, an additional staff person has been employed, and we project and look forward to increased activities here.

KMA now houses 10 separate or subsidiary corporations including the Kentucky Medical Insurance Company, and will soon expand to the physical capacity of our building. An Ad Hoc Building Committee was appointed to consider the capacity of the building. It has met and reviewed our current and projected space needs. It is felt that our current space will suffice, given the present use, but further expansion may be a possibility to consider, depending on expansion of our services.

This July marked the end of the AMA Presidency of our own Hoyt Gardner, and his wife Rose, whose year ended as Treasurer of the AMA Auxiliary. Both saw active, effective years, and we join our colleagues across the country in expressing our appreciation for their services.

In considering the utilization of our resuorces, I feel obligated to discuss one particular area which gains little publicity outside our Board Room and Headquarters Building. Each year it seems we face additional confrontations, even crises, which no planning can completely predict or prepare for. These confrontations are in such areas as various governmental dictates, legal challenges from national and state governmental agencies, and even questions from within our own membership. Each of these types of issues requires an enormous amount of time and financial expenditure when, ideally, these resources could be dedicated to more productive undertakings. Unfortunate as it may be, this crisis confrontation has become a way of life and a standard method of doing business, and KMA is equal to the test. Looking at this from a different perspective, it might be said that this is one of the primary reasons for KMA's existence, and our expertise here is not a matter of commendation, but an ability we must possess and exercise as, again, a simple routine.

In addition to being involved in a day-to-day business and corporate activities, it has been my privilege to represent KMA in legal/official capacities, as well as to the media and other public representation areas. This service to the Association is an honor which I freely acknowledge, and I appreciate the trust and confidence of the membership in carrying out my duties.

S. Randolph Scheen, M.D., Secretary-Treasurer

Report of the Editor

The membership may have noted extensive changes in the *Journal's* format during this past year. This is all part of the Board's plan to continue to make the *Journal* more readable and attractive. The quality of type has improved, with our printers changing from hot-metal type to photo type. This coupled with the changes made by our staff has resulted in a more attractive and colorful publication.

Each month the Editors receive numerous articles to review on a variety of topics. We have found the majority to be of good quality on timely subjects. The Editors appreciate the contributions from the membership and encourage their continued participation. We appreciate the inclusive articles, but also welcome short articles of a selective nature.

In working with the President, Robert S. Howell, M.D., and his Membership and Community Education Program, the Editors have initiated several new sections which will become regular periodic features of the *Journal.* The newest addition to the *Journal* is a section called "Profile." This new section has featured KMA President, Robert S. Howell, M.D., and Kentucky Senator, John Trevey, M.D.

The October issue will highlight the goals of the incoming President, Frank Pitzer, M.D. A special series of articles on socio-economic themes will be added at a later date. These articles will appear three to four times annually and will feature short discussions of differing viewpoints on a particular subject; for example, computers, medical-legal issues, Medicare and other pertinent themes.

The goal of the Editors is to provide a concise and beneficial publication that will aid the members in keeping abreast of current medical developments, while informing them, in detail, of the political and socio-economic events affecting their practice. We welcome and encourage the membership to voice their ideas and concerns through "Letters to the Editor." This particular section of the *Journal* has proven to be widely read and offers an ideal format for the members to express their views and concerns on *Journal* articles and issues confronting the Association.

I would like to take this opportunity to thank the Editors and staff for their diligence and assistance. Each one gives up one morning monthly to handle the duties of the *Journal* and they should be commended for their dedication.

A. Evan Overstreet, M.D., Editor

Report of the Delegates to the AMA

Honolulu, Hawaii and Chicago, Illinois were the sites for the 1979 Interim and the 1980 Annual AMA conventions. Delegates representing the KMA were David Stevens, M.D., Fred Rainey, M.D., and Harold Haller, M.D. and alternate delegates were Lee Hess, M.D., Ken Crawford, M.D., and Wally Montgomery, M.D. Also attending were President Robert Howell, Past Presidents John Stewart and Carl Cooper. The staff headed by Robert Cox and William Applegate ably assisted the work of the delegation.

Convention business was as voluminous as usual with 172 items on the Interim convention docket and 275 at the July 20-24, 1980 meeting in Chicago. The issues that dominated the convention related to national health insurance, medical ethics, medical education, and various third party interfaces with which the medical profession deals. At both conventions the delegates voted to continue the AMA national legislative policy regarding national health insurance. In short, this policy affirms the position that no national health insurance tax supported program is necessary to provide adequate coverage for medical care for the American people. The delegates voted to consider a catastrophic national program if legislative strategy and events require it.

Medical ethics was considered at the Interim convention and then voted in final form at the July meeting. With little debate the report of the Ad Hoc Committee was accepted with the ethics adopted as follows in the Appendix. There was little debate at the meeting as the preceding several conventions had considered the matter in depth and most state associations, as had Kentucky, reviewed the items and participated in the debate which culminated in the approval of the ethics.

The second issue addressed during the year was the question of medical education. Since the AMA first spearheaded the Flexner report in 1911, its interest and concern with medical education has been a high priority continuing activity. However, the development of speciality organizations, the growing strength of the Association of American Medical Colleges, and the increasing sophistication of the lay public and their interest in the subject has eroded the AMA's authority. Recognizing this, the Council on Medical Education presented a white paper (CME Report A) at the Interim meeting. This report listed 26 items related to medical education at all levels, undergraduate, graduate, and continuing which affect the physician and the American public. The CME report requests all parties concerned to review the situation. Action taken at the 1980 annual convention reorganized the Coordinating Council on Medical Education and returned the AMA to the educational structure between the various organizations as before. The Liaison Committee on

Graduate Medical Education was also relieved of some of its authority so that the Residency Review Committees will once again exert a more responsible role. In addition, the delegates approved a Board of Trustees and CME position which would allow the AMA and the Liaison Committee on Continuing Medical Education to re-establish its partnership in overseeing continuing medical education in this country. This was a reversal of the action taken at the 1979 annual convention.

The Council on Medical Services presented to the convention a number of new position papers detailing health maintenance organizations, PSROs, confidentiality, and further defining the so called usual, customary, prevailing and reasonable. The delegation would recommend that some of these reports be reproduced in the Kentucky Medical Association Journal so that all physicians could share in the clarification they bring to complicated situations. The House of Delegates voted to approve the definitions as listed as Appendix 2 for UCR.

Many other issues were of course considered and will be reported in the American Medical News as well as through other medical periodicals. Kentucky resolution regarding reimbursement entitled "Blood Donor Incentives" was passed by the House of Delegates without amendment and is reproduced under Appendix 3.

Kentucky personalities continue to be involved in the affairs of the AMA. As most know, Hoyt Gardner completed his term as the 134th President of the American Medical Association. He was succeeded by Doctor Robert Hunter, a Sedro Valley practitioner. Doctor Hunter has been active on the Board of Trustees since 1971 and serving as chairman from 1977 to 1979. His attributes will make him a strong leader, and I think responsive to the needs of the American public as well as the American physician. Doctor Harold E. Kleinert of Louisville, Kentucky was awarded the Scientific Achievement Award for his work in developing microsurgical techniques and hand procedures. Doctor Kleinert received a medallion as well as a $2,500 stipend. The delegates elected Daniel T. Cloud, M.D. of Phoenix, Arizona, pediatric surgeon, to be the 136th president. Doctor Cloud defeated Thomas A. Ballantine, M.D., a Boston, Massachusetts neurosurgeon for this post. The Board of Trustees election for four spots was contested by six candidates; George Mills of Honolulu was elected to the Board with new members Allen Nelson, a Utah internist, James Todd, a New Jersey surgeon, and Robert Kelley a Minnesota family practitioner. In my estimation, the Board of Trustees is stronger now than anytime I have served in the AMA House. I would anticipate that this strong leadership will help resolve some of the on-going problems.

The only bad news related to the AMA is its persistent membership problem. Inadequate numbers of physicians, particularly those who belong to state associations but do not belong to the AMA, do not join. The solution to this problem is not evident at this time but all in the AMA House, that is the Board of Trustees, the delegates, the various state association presidents, and the constituent society staffs are aware of the problem and are considering various solutions.

The KMA delegation began a small pilot program this year using computer derived information to direct mail to all KMA members not members of AMA. Results were disappointing.

Many thanks to the staff at KMA, the officers, delegates and alternates who made 1979-80 another successful year for Kentucky in the AMA.

David B. Stevens, M.D., Chairman

Report of the Executive Vice President

As we enter the 1980's, activity revolving around the Headquarters Office has been one of preparation for the years ahead, as well as trying to accomplish today's priorities.

There are may challenges to our thought processes as we plan for the future. Some of these include social changes, public demand and patient expectations; government and its increasing involvement in health care delivery systems through legislation and regulation; payment mechanisms, the increased role of third parties and decreased role of patient responsibility; technology and all of its effects; physician supply and distribution versus population increase, and increased utilization of paramedical personnel. On the other side of the coin, one's attention is directed to problems such as inflation and energy and their all encompassing effect on physicians and the Association. These are but examples of a lengthy list.

Headquarters Office and Staff

The KMA Headquarters Building was completed in 1961 and an addition to the building was constructed in 1972. The growth of the Association and its ancillary functions has exceeded expectations, and operation space is now at a premium. A special committee is again studying our immediate and long-range needs. A key to those needs will be the requirements of the Kentucky Medical Insurance Company during the next few years.

The staff of KMA has been performing with excellence while carrying extra loads as we have delayed bringing the staff numbers to full strength awaiting some space availability. An additional staff person was hired on July 1 with the primary responsibility of assisting specialty groups in accordance with the House of Delegates' request last year through the Interspecialty Council. We are planning to fulfill our additional staff requirements by the first of the year.

It is a pleasure to work with the entire KMA staff. I am confident their talent, dedication, and long hours of hard work are unsurpassed.

Finances

It was reported last year that our five-year dues plan had completed its cycle, but no dues increase would have to be proposed. Some adjustment was anticipated for this year. It now appears an increase is not required for the next associational year. Although inflation has been rampant, a cost-conscious attitude of the Budget Committee, Board, and staff will allow another delay in having to propose a new dues structure.

Membership

Membership in KMA continues to increase and is at an all-time high. We know, however, there are many potential members who do not belong for some reason. A recruitment and retention program is underway and will be ongoing to reach every physician possible. The computer, now one and one-half years old, is a helpful membership tool. Direct billing by KMA to the county society membership, along with efforts of the Trustees and county society officers, helps increase our ability to offer membership benefits to all eligible Kentucky physicians. In addition, President Howell's campaign to better inform physicians about their Kentucky Medical Association should be of considerable assistance in membership programs.

Administration

The Association's administrative chores continue to grow. The membership has grown, the responsibilities and services have grown, the committee activity has increased, and the staff is larger. Meetings are held daily and on many occasions, multiple meetings are in progress. There are local meetings, statewide meetings, and

national meetings. Appropriate representation of the Association becomes more demanding as more outside forces affect medicine.

The role of government, local, state, and federal, accelerates daily, infringing upon the practice of medicine. KMA is continually planning ahead, acting and negotiating, and reacting on behalf of the profession. We are assuming an increasingly aggressive posture in Frankfort to deal with government activities at the administrative, regulatory, and legislative levels.

We are getting better attendance at KMA-sponsored seminars and workshops; and more are being offered. Additional efforts are being planned for the continuing education of the physician. The Annual Meeting remains one of the best in the country and it is the culmination of a year-long effort by many people.

More services are being offered annually and more tangible membership benefits are under study. Executive and secretarial services for specialty societies will undoubtedly expand rapidly.

The volume of mail, the number of telephone contacts, the visits by members, allied group representatives, government officials, and the public, generate a steady hum of activity in the Headquarters Office. Day-to-day operations will not be delineated in detail in this report. The committee reports to the House of Delegates all reflect considerable staff involvement. A list of meetings staff attended or serviced during the Associational year will be made available to Reference Committee No. 1.

On behalf of your staff, I would like to express our gratitude for the privilege of working for Kentucky physicians. We especially want to acknowledge the Board members, officers, and committee chairmen with whom we have frequent contact and who are most helpful to staff in assisting us in fulfilling our assigned duties.

Robert G. Cox, Executive Vice President

Advisory Committee to the KMA Auxiliary

The Advisory Committee to the KMA Auxiliary was not requested to meet during the Associational year. The Auxiliary continues to function under outstanding leadership and provides excellent service to both members and to the public.

Despite inflationary trends, the Auxiliary exceeded all existing records in its drive to collect funds for the AMA Education and Research Foundation. Checks were distributed to the University of Kentucky College of Medicine and the University of Louisville School of Medicine during the April Board of Trustees meeting.

Although the AMA-ERF is the most recognized program of the Auxiliary, we must point out that thousands of hours are donated annually to public projects in practically every community in Kentucky by Auxiliary members. The McDowell House in Danville, owned and operated by KMA, annually is the recipient of funds collected by various component Auxiliary societies for the preservation and maintenance of the House.

The Auxiliary is to be congratulated for its outstanding achievements, both in Kentucky and on the National level. The contribution of the Auxiliary to the welfare of organized medicine and to the betterment of society deserves our recognition and honor.

Robert S. Howell, M.D., Chairman

Kentucky Medical Insurance Company

Two years ago, when the House of Delegates met in Lexington, organized medicine in this state took a giant step toward insulating Kentucky physicians against the vagaries of the commercial professional liability insurance carriers. At that Lexington meeting, a "kick off" campaign was initiated to sell stock in our own professional liability insurance company and the results, hopefully, are now known to every KMA member.

Sufficient stock was sold in the ensuing eight months to allow Kentucky Medical Insurance Company to capitalize and become operational on June, 1979. Since then, Kentucky physicians no longer have cause to be concerned about another "crisis" situation and the attendant unavailability of insurance. KMIC now provides a stable, ongoing source for this necessary coverage, and we want to share with you a report on the status and progress of your own company.

The progress of KMIC can best be reported, concisely, by the following chart, which compares our initial seven-month period (6-1-79 to 12-31-79) with the first six months of 1980.

	06-01-79 to 12-31-79	01-01-80 to 06-30-80	TOTALS as of 06-30-80
Premiums Written	$ 880,965	$529,730	$1,410,695
		Increase of	
Capital and Surplus	$1,634,314	$329,132	$1,963,446
Stock Sales	$1,675,000	$282,000	$1,957,000
Number of Stockholders	1103	108	1211
Policyholders	404	277	681
% of Kentucky Physicians Insured	11.6	7.85	19.45

We are pleased to announce that as of the 1980 meeting of the KMA House of Delegates, KMIC has become the second largest writer of professional liability insurance in Kentucky. This achievement, after only 16 months in operation, reflects a remarkable market penetration as more and more physicians recognize the benefits and advantages of the KMIC program of insurance. Your company is on target toward reaching its goal, by year's end, of having 1,000 policyholders and a written premium of $2,000,000.

Since our report to the House last year, KMIC has kept its conceptual commitment that its rates will reflect, as accurately as possible, the very favorable claims climate this state has historically enjoyed. On December, 1979, rates were reduced 15% and KMIC rates are now among the lowest, if not the lowest, in Kentucky in almost all medical specialties. Your company pledges anew that it will continue to survey rate structure data and take such actions as necessary to see that rates charged will be as low as possible and, concurrently, adequate to pay claims. Since becoming operational, it is conservatively estimated that KMIC has saved its policyholders $190,000 in premium, or an average of $279.00 per policyholder.

Kentucky physicians who have not yet become KMIC policyholders have also benefited from your company's existence. Some commercial carriers have reduced their rates and others have instituted no rate increases, as they did in neighboring states, and KMIC takes full credit for these reactions. It is impossible to estimate the premium savings to Kentucky physicians as the result of these reactions, but it is considerable.

One of the concepts behind KMIC is to provide physicians in this state with a claims prevention program that will help maintain our excellent experience record. The first step was taken this spring when the KMIC Student Award was instituted at both medical schools here. To be awarded annually to a senior medical student, the $500 award is to emphasize the importance of patient rapport in mitigating claims potential. Awarded for excellence in the area of physician/patient relationships, the award also recognizes the importance, to organized medicine in this state and to KMIC, of the young physician.

An educational program, designed to alert our policyholders to the types of claims being filed and carrying suggestions for avoiding these claims, is now being formulated, and will constitute the "heart" of our claims prevention program. This program, an important service to our policyholders, will get underway in early 1981.

With respect to claims filed against KMIC policyholders, we take pride in informing you that through the period June 1, 1979, to July 1, 1980—after thirteen months in operation—only **one** claim has been reported. This certainly attests to the high quality of medicine practiced by our policyholders. Our claims prevention program will be designed to help maintain this excellent claims record.

The sale of KMIC stock to Kentucky physicians was for a two-year period commencing September 15, 1978, and ending September 12, 1980. At the conclusion of the public sale, the requirement of stock purchase for eligibility to purchase liability insurance terminated. Now that stock is no longer required, it is anticipated that policy sales will increase.

Kentucky physicians who have purchased stock have taken advantage of a prime concept behind KMIC. The premium they will invest over a practice lifetime will be kept here in their own company where, as owners, they are eligible to participate in the company's earnings and receive a return on those invested premiums.

Your company is continuing to study and analyze areas where expanded insurance services and product lines would benefit Kentucky physicians. A part of this ongoing study is the resolution currently before the House which came about as the result of a survey of physicians in this state. If physicians here accept the proposal of Physicians Insurance Company of Ohio to market their multi-line products in Kentucky, KMIC will monitor the reception they receive and determine, at some future date, if the demand is sufficient to warrant our own entry into these other product lines.

We take pride in submitting this positive report on our own insurance company, the progress made to date, and the plans we have for the future to serve the insurance needs of Kentucky physicians. Now that we have become the second largest carrier in Kentucky, let us urge our colleagues to continue with their outstanding support and participation toward quickly making KMIC the major carrier in the state.

Ballard W. Cassady, M.D., President

KMA Board of Trustees

Insurance Coverages Sponsored by KMA

WHEREAS, at the direction of the House of Delegates, KMA organized the Kentucky Medical Insurance Company to provide a continuing, stable source of medical professional liability insurance to Kentucky physicians, and

WHEREAS, KMIC is now fully operational and is fulfilling its commitment by providing sound, reasonably-priced coverage, and

WHEREAS, KMA and KMIC have established a close relationship with Kentucky's neighboring physician-owned company, Physicians Insurance Company of Ohio, which provided much guidance in the formation of KMIC, reinsures KMIC, and provides the excess coverage offered to Kentucky physicians through KMIC, and

WHEREAS, PICO's substantial growth has enabled that company to meet other insurance needs of physicians by successfully marketing automobile, home-owners, life insurance, and financial planning services as well, therefore be it

RESOLVED, that the KMA House of Delegates recognizes the potential of KMA providing a means for Kentucky physicians to receive multi-line insurance coverage (*ie,* life, homeowners, auto, and financial planning services) through its own sponsored company or another physician-owned company endorsed by KMA, such as PICO, and be it further

RESOLVED, that the KMA Board of Trustees, through mechanisms it deems appropriate, make a final determination as to the implementation of such insurance coverage based on the interest and/or benefit to the membership, and be it further

RESOLVED, that should such a program be initiated through another company or companies, it be monitored closely, and if and when deemed indicated, KMA establish the appropriate company or companies to market such coverage in a similar fashion as was accomplished in the formation of the Kentucky Medical Insurance Company.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 1 as a whole as amended.

Mr. Speaker, as Chairman of Reference Committee No. 1, I would like to express my thanks to each of the Committee members, R. Kendall Brown, M.D., and R. John Sanders, M.D. for their help in preparing this report.

REFERENCE COMMITTEE NO. 1
William P. McKee, M.D., Shelbyville, Chairman
R. John Sanders, M.D., Owensboro
R. Kendall Brown, M.D., Georgetown

REFERENCE COMMITTEE NO. 2

John W. Kraus, M.D., Paducah
Chairman

Reference Committee No. 2 considered the following reports and Resolutions:

13. Report of the Scientific Program Committee
14. Report of the Scientific Exhibits Committee
15. Report of the Continuing Medical Education Committee
16. Report of the Cancer Committee
19. Report of the Hospital Committee
32. Report of the Emergency Medical Care Committee
35. Report of the Interspecialty Council
5. Report of the Chairman, Board of Trustees, Special Report A—Continuing Medical Education, **only**

Resolution D—Unified Hospital Inspections (Pennyrile Medical Society)

Resolution I—Qualification of Medical School Candidates (Pennyrile Medical Society)

Resolution O—Support of University Teaching Hospitals (Jefferson County Medical Society)

Resolution Q—University of Louisville Teaching Hospital (Hopkins County Medical Society)

Resolution T—Medical Education Facilities (Medical Student Delegation)

ITEMS FOR CONSENT

Reference Committee No. 2 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

13. Report of the Scientific Program Committee—filed
14. Report of the Scientific Exhibits Committee—filed
15. Report of the Continuing Medical Education Committee—filed
16. Report of the Cancer Committee—filed
19. Report of the Hospital Committee—filed
32. Report of the Emergency Medical Care Committee—The Reference Committee wishes to compliment the Emergency Medical Care Committee on its outstanding performance and strongly urges the adoption of its report.

35. Report of the Interspecialty Council—filed
5. Report of the Chairman, Board of Trustees; Specialty Report A—Continuing Medical Education, **only**—filed

Report of the Scientific Program Committee

Your Scientific Program Committee, or rather, a substitute Scientific Program Committee, met in early November to plan the program for the KMA Annual Meeting. Because of poor weather, several members were unable to attend the meeting at the last minute. One member was represented by Doctor Lewis Flint, an alternate, and we were fortunate in having Doctor Richard Hench, a past chairman of the Scientific Program Committee, and Doctor Dwight Blackburn, Chairman of the KMA Board, to sit in on the meeting to assist in the planning. They did an excellent job and I appreciate their participation on short notice. A second meeting was held December 12 with the Presidents of the 22 specialty groups participating in the Annual Session to discuss their part in planning the Scientific Program. The specialty group scientific programs, which are held in conjunction with our General Session, have proven invaluable and, we feel, provide an excellent contribution to the continuing medical education of the membership.

I am extremely grateful for the excellent cooperation in planning the overall meeting that we have received from the specialty groups.

The Scientific Program this year will feature an overall theme of "Uncommon Problems in the Human Life Cycle." Each half-day session will focus on general areas of human development, as indicated by the subthemes, "Birth, Infancy and Childhood," "Adolescence to Adulthood," "Middle-Age," and "The Aging Patient." The Committee members and specialty groups have gone to great lengths to bring in some of the country's most outstanding speakers and we feel the topics to be presented will be very timely. We are proud of the fact that KMA's Annual Scientific Program continues to be one of the best attended state meetings in the country. It is accredited for continuing medical education by the American Medical Association, as well as several medical specialty societies. In addition, one of our sister states has modified its program, based on KMA's, and as a result, has reported a significant increase in attendance and interest in the meeting.

The Program will be held at the Ramada Inn/Bluegrass Convention Center and we are pleased to report that the construction, which proved to be a slight inconvenience last year, has been completed and will greatly enhance the attractiveness of our meeting site. Overall, the Ramada Inn/Bluegrass Convention Center is an excellent convention facility allowing us to hold the entire meeting at a single location.

As Chairman of the Scientific Program Committee, I am very grateful for the efforts of those who have assisted in the formation of this program, particularly the substitute Committee members, specialty group presidents and specialty program chairmen.

The Committee is very dedicated to making the Scientific Program responsive to the needs of the membership and suggestions for future programs are always welcome.

James A. Baumgarten, M.D., Chairman

Scientific Exhibits Committee

The Scientific Exhibits Committee is pleased with the response we have received for the 1980 Annual Meeting of the KMA. We presently have several exhibitors scheduled to present interesting and educational programs for our members and guests attending the Annual Meeting. The Committee continues to strive for excellence, not only in the material that is presented, but for improvement in the overall quality and visual nature of the exhibit area. The 1979 Exhibit Area was outstanding in all these areas, and response from those members visiting the booths was excellent.

The Scientific Exhibit Area this year will include the same amount of space as last year and again will be located in the corridor leading to the Assembly Hall. We urge all attendees to stop by and visit with the exhibitors and learn the latest methods and interesting developments in the medical-science community.

On behalf of the Committee, we wish to express our continued appreciation to those physicians and other exhibitors who take time from their busy schedules to participate in the Annual Meeting. These exhibitors provide an important facet to the overall success of the meeting, and we are deeply indebted to them for their continued support.

Richard A. Kielar, M.D., Chairman

Report of the Continuing Medical Education Committee

This year the Committee has taken steps to develop a more concise accrediting program that would seek to involve more institutions and medical societies in the state. The Kentucky Medical Association, last year, obtained the authority to act as the intrastate accrediting body for the state. This was a result of the American Medical Association's withdrawal from the Liaison Committee on Continuing Medical Education (LCCME), and its re-establishment of its own accrediting body. The new AMA accrediting body, Committee on Accreditation, Continuing Medical Education (CACME), now has the responsibility to review the accrediting bodies and determine their accreditation status. The LCCME with its remaining members has curtailed its activities extensively and it is envisioned that it will not be able to function as well, if at all, in the near future. To rectify the problem between these two national bodies, many of the state organizations have gone on record requesting a reconciliation between the two groups. To this end, the AMA has invited each of the original sponsors of the LCCME to participate on CACME. Negotiations on this particular matter are still underway.

All responsibility for CME activities now rests with the KMA CME Committee. The Committee is responsible for reviewing each program that the Association sponsors and recommending procedures, teaching and evaluating techniques to ensure the quality of the programming presented. The lack of coordinating all activities through one committee or group was stipulated in our last site review as one of our flaws. This new procedure is expected to alleviate this problem.

This year another institution was approved for provisional accreditation, which was the Ephraim McDowell Hospital, Boyle County Medical Society Consortium. This site brings the total number of accredited institutions to six. The Committee felt that sufficient emphasis to encourage more institutions and societies to seek accreditation had not been undertaken. Therefore, the Committee is engaging in a program to encourage prospective sites in the state to seek accreditation. Members of the Committee will work closely with major hospitals and medical societies across the state. Their ultimate goal is to have an accredited CME provider within easy driving distance of every physician in the state. The Committee is currently working with sites in northern Kentucky and Bowling Green because of their past interest in becoming an accredited provider of CME. To help disseminate the information on this new program, the Committee will be staffing a booth at the Annual Meeting in the Scientific Exhibit Area to disseminate information and discuss the program. It is hoped that this exposure will give the prospective community's medical leadership the necessary information and encouragement to seek accreditation. The Committee will

also be disseminating information on the KMA's Voluntary CME Program and the AMA's Physician Recognition Award.

This year, as a means of providing additional Category I programming for the physicians in the state, the Committee undertook the role of co-sponsor for specialty society programs. This year four medical societies obtained and received Category I credit for their spring programs. From all indications the program seems to be very successful in meeting the needs of the specialty societies and their membership in obtaining Category I credits. Since the program got underway in late winter, many specialty societies had already undertaken other steps to obtain credits or did not seek it this year. The Committee strongly encourages specialty societies that would like co-sponsorship to contact the CME Committee as soon as they have decided on the date for their program so the Committee might assist in the development of their program and its implementation.

Another goal of the Committee is to develop a more concise organizational structure for the CME activities and accreditation in the state. At the Chairman's direction, a Subcommittee on Long-Range Planning for CME Activities has been appointed and has been working on proposals that would increase the Association's role in the field of CME. As already mentioned, our initial goal is to obtain more accredited sites in the state to meet the needs of the membership. As our program grows and the need develops, we have plans to further expand our activities that will ensure quality and productive CME Programming are available.

The Chairman of the Committee for the past three years, Vertrees Hollingsworth, M.D., has left the Committee to pursue new goals in the U.S. Navy. On behalf of the Committee, I would like to take this opportunity to thank Doctor Hollingsworth for his diligence and hard work in developing the new criteria by which the Committee's goals have been established and implemented. Doctor Hollingsworth's leadership will be missed and we wish him luck in his new endeavors.

The Committee's size was expanded last year as a means of obtaining input from the different geographical areas across the state. This input has proved very beneficial to the deliberations of the Committee. I would like to take this opportunity to thank the Committee members for their participation and hard work.

Stuart Graves, Jr., M.D., Chairman

Report of the Cancer Committee

The Cancer Committee met formally once during the Associational year to discuss and make recommendations concerning proposals to the various agencies involved in research, detection and treatment. The Committee members reviewed various reports and discussed current projects involved in the field of cancer.

The Commonwealth of Kentucky is very rapidly moving to the forefront of activity and has been recognized for its innovativeness in providing the framework from which positive strides may be made in eradicating cancer. The James Graham Brown Regional Cancer Center in Louisville is well on its way to completion of its building and staffing, and the Ephraim McDowell Cancer Network located in Lexington is in the planning stage with groundbreaking scheduled in the near future. These two complexes should provide Kentucky with excellent service and form an adhesive force in research and detection.

The 1980 Kentucky General Assembly reduced the membership of the Kentucky Cancer Commission from 13 members to seven. The Committee has reviewed the work of the Commission during the two years of its existence and has offered its input to providing a more meaningful and constructive approach in its goals and purposes.

As Chairman, I wish to express my deep appreciation to the Committee members for their service. The Committee encompasses leading figures in the field of cancer, who, on a daily basis, represent their professions on the Kentucky Cancer Society, Kentucky Cancer Commission, Ephraim McDowell Cancer Network and the James Graham Brown Regional Cancer Center. We are indeed fortunate in having their experience and broad background as they continue serving on behalf of all citizens.

P. Raphael Caffrey, M.D., Chairman

Report of the Hospital Committee

The KMA Hospital Committee did not find it necessary to meet this year, however, the Committee members were kept informed of current areas of interest by mail. One of those areas has been Hospital Cost Containment. However, since KMA has a Cost Containment Committee and is actively involved in the Kentucky Voluntary Effort for Cost Containment, it was felt that additional involvement by the Hospital Committee in this area would be duplicative. The Committee continues to be available for consultation on hospital related issues and maintains its interest in the dry-run accreditation program which has been an ongoing function of the Committee for a number of years.

Royce E. Dawson, M.D. Chairman

Report of the Emergency Medical Care Committee

Your Emergency Medical Care Committee met November 21, 1979, to get a status report on Emergency Medical Care Services in the state of Kentucky and to plan the Tenth Annual KMA Emergency Medical Care Seminar, which the Committee presented June 18-19, 1980.

There continues to be concern over the ability of communities to sustain EMS Programs since federal funding programs have been cut. Representatives of the Commonwealth of Kentucky Emergency Medical Services Branch presented the Committee with a draft of legislation, which was subsequently passed by the Kentucky General Assembly, providing local communities with a local option tax mechanism for funding EMS Programs.

We also heard a report on the proposed statewide poison control center which would be available to physicians and hospitals, as well as to consumers throughout the state.

The problem of patients arriving at regional trauma centers without being adequately stabilized before transport was also discussed and several suggestions were made to help EMS personnel develop more appropriate pretransfer stabilization techniques. These techniques were also discussed in detail during the Emergency Medical Care Seminar in June.

Committee members were advised that the Emergency Department Nurses Association has recently established a series of one-day workshops which are conducted in rural areas around the state. The program goal is to provide emergency department nurses with continuing education opportunities on a regional level.

We were pleased to have representatives of the Jefferson County Judge Executive's Office in attendance with us to discuss the 911 Emergency Telephone System. In 1967, the President's Commission on Law Enforcement and the Justice Administration recommended that a single telephone number be established for reporting emergencies. That was followed by the American Telephone and Telegraph Company establishing the three digit number, 911, as the National Emergency telephone number. Approximately 26% of the nation's population now uses this system. The Committee learned that in Jefferson County there are 40 fire departments in the telephone book utilizing seven different numbers, with separate num-

bers for city and county EMS and the poison control center. Similar fragmentations can be found in almost all of Kentucky's larger cities. Efforts are continuing to develop a 911 system in Jefferson County, but problems with funding, politics, and a lack of appropriate technology seem to be almost overwhelming.

The Committee also discussed Kentucky's state of preparedness in the event of a nuclear accident and offered its services to the State Emergency Preparedness Division in the development of an emergency preparedness plan. At this time, the Committee is actively working with the state of Kentucky in this area.

A considerable part of the Committee's activities this year again revolved around the development of the KMA Emergency Medical Care Seminar which for the past three years has been held in cooperation with the Kentucky Department for Human Resources Emergency Medical Services Branch. The program was held in Louisville, June 18-19, and 458 people registered for the meeting.

The program was a combination of individual lectures and this year for the first time, several simultaneous "hands on" workshops were held where the participants could actively participate in some of the techniques discussed. We continued to make available the Basic Life Support Program taught by the American Red Cross, and that segment of the program was again well attended this year. We were pleased to have been able to make it a part of the program.

We are indebted to the physicians from around the state who continue to give so freely of their time to come and serve as faculty for the program. If it were not for the generosity of these individuals, it would be almost impossible to present a program of this caliber for such a low registration fee. The small fee charged by the Committee covers the cost of meals and other incidental expenses, and continues to allow many people to attend a quality program for a small amount of money.

The Committee recommends that the seminar be held again next year with the Emergency Medical Care Committee as the coordinating agency. The members of the Committee have again contributed a considerable amount of time and expertise this year for which I am most appreciative.

E. Truman Mays, M.D., Chairman

RECOMMENDATIONS

1. The Committee recommends that the Emergency Medical Care Seminar be conducted in 1981 with the Emergency Medical Care Committee acting as the coordinating agency.

Report of the Interspecialty Council

The Interspecialty Council did not hold a formal meeting this year, however, extensive discussions have been underway between the Kentucky Medical Association and member groups of the Interspecialty Council concerning the establishment of a Department of Specialty Services. The discussions were the result of the Interspecialty Council's report last year, which recommended the creation and implementation of a Department of Specialty Services. Due to the legislative session, implementation of this program did not get underway until late April. At that time meetings were held with representatives of the Kentucky ENT Society, Kentucky Eye Physicians and Surgeons, Kentucky Internal Medicine and the Kentucky Psychiatric Association, who had indicated a desire to utilize the services of this program. Several other specialties have the program under consideration at this time and eight other specialty groups will continue to use partial services. In the future it is anticipated that expanded services will be offered and that additional specialty societies will utilize the program.

An office has been established in the KMA Headquarters Office and an administrative secretary hired to assist the executive staff in implementing this program.

Initially the program will offer administrative services to any specialty group so desiring. The services will be offered at cost. Specialty societies are encouraged to utilize these services, which we hope will assist in establishing better communications between the society's leadership and the KMA. This program is by no means intended to supersede the autonomy of the specialty groups, but to assist them in maintaining a strong organizational structure to meet the needs of their constituents and the public.

The Committee very strongly feels that this program will be of significant benefit to those groups who participate and feels that their needs can be well met.

I would like to convey my thanks to those specialty groups for their patience, assistance and support in implementing this program.

Paul J. Parks, M.D., Chairman

Special Report A
Board of Trustees (A-80)
Continuing Medical Education Records

A Voluntary CME Records Recording Program was initiated by the House of Delegates in 1976. The program was provided to give the membership a mechanism by which to record their CME credits each year. Twice annually a reporting form is distributed through the *KMA Journal.* Announcements about the annual reporting form for CME activities are disseminated through the *Journal* and "Communicator."

Whereas the program's initial purpose is to gather, record and tabulate information on CME activities it also serves to encourage physicians to obtain CME programming as a means of keeping current on new medical skills and developments. The announcements in the Association's publications stress the need for physicians to obtain 150 hours of CME every three years. Major emphasis has been placed on Category 1, which is given for programs of a scientific or clinical nature presented by an accredited institution or organization. The majority of those individuals reporting this year basically have been listing only their Category I hours. Categories II through VI revolve around the activities that pertain to physicians day-to-day continuing education, such as the reading of articles and publication of a manuscript.

This year we had twice as many members reporting their CME activities. This is due to the fact that the reporting form is easily accessible to the members. Out of 120 members participating, 5,279 hours of Category 1 were reported. This is an average of 44 hours of Category 1 per physician. Since this is based on a one year reporting period we could then roughly ascertain that the average physician is obtaining twice as many Category I hours in a three year period than is currently recommended by the KMA and AMA. This increase in Category I hours may be a result of the growing number of specialty societies requiring CME credits for membership in their specialty society or for Board recertification.

The AMA has reported to us this year that 327 physicians have obtained the Physician Recognition Award. To acknowledge their achievement these individuals names have been published in the *KMA Journal.* The PRA Program, which is endorsed by the KMA, requires that a physician obtain 150 hours of CME credit over a three year period. It is interesting to note that this group of individuals represents approximately 10% of the active membership in the Association, and considering that the Award is only presented on a three year basis it is quite possible that as many as 30-40% of the membership is qualified for the PRA during any one time.

From review of past records it can be noted that there has definitely been an increase in physicians' CME activities. Programs sponsored by the Association continued to attract large crowds and physician participation.

Since this is a Voluntary Program and completion of the reporting form takes a significant amount of time, incentive to comply with the Program is minimal. Consideration should be given to this when reviewing the relatively low percentage of participation. The goals of the record keeping system are being met and even though the information provided does not give precise statistical data, it does indicate that there is substantial voluntary participation in CME by Kentucky physicians. The membership is again strongly encouraged to maintain records on CME participation and use the reporting form distributed annually in the *KMA Journal* to report their activities to the Association. The records are kept confidential and only statistical information is derived for use by the Board of Trustees and the House of Delegates for associational matters.

Resolution D
Pennyrile Medical Society
Unified Hospital Inspections

WHEREAS, each year we see more and more time, effort, and manhours expended by hospitals, hospital employees and medical staff members in various hospital inspections and accreditation functions, and this adds significantly to the overall cost of medical care, and

WHEREAS, most inspections are duplicative, repetitive, and overlapping and redundant, and the criteria for inspection by various agencies, departments, and/or commissions are often conflicting, and some criteria are counter-productive to quality medical care, and

WHEREAS, in a single year a single institution (hospital) may have more than 30 different inspections by various governmental and accrediting agencies or bodies, therefore be it

RESOLVED, that a joint committee be formed with representatives from the Kentucky Medical Association, Kentucky Hospital Association and the Kentucky Department for Human Resources with the goal of having one unified hospital and staff inspection per year that will satisfy accreditation for all agencies and all bodies and will assure quality patient care in a quality physical setting safely and decrease the tremendous costs that are now generated by multiple inspections.

Recommendations, Reference Committee No. 2

Reference Committee No. 2 reviewed Resolution D—Unified Hospital Inspections (Pennyrile Medical Society). While we agree with the concepts implied it is recommended that it be referred back to the Pennyrile Medical Society for clarification of the intent.

James F. Rozelle, M.D., Delegate from the Pennyrile Medical Society, was recognized, who stated that referral of the Resolution back to the county society would not address its request; and made a motion that the Reference Committee's recommendation be rejected, and that Resolution D be adopted. On a call for the vote, the Reference Committee's recommendation to refer the Resolution back to the county society was rejected; and Resolution D was adopted.

Resolution I
Pennyrile Medical Society
Qualification of Medical School Candidates

WHEREAS, medical schools and their admissions committees are caught in the middle between the federal dollar and the agencies who demand various quotas, and

WHEREAS, we reject the theory of some governmental planners who dwell on past societal sins as a reason to establish arbitrary quotas and accord to some of our citizens a status "more equal" than to others, and feel that this sort of cerebration is insulting and degrading to those applicants, who, by the fruits of their own labors (regardless of sex, race, creed, color or census status) gain admission to our medical schools, and

WHEREAS, this profession achieved its greatness in the United States of America by encouraging free competition in an open academic atmosphere where students demonstrating the greatest competence were selected, now, therefore be it

RESOLVED, the House of Delegates of the Kentucky Medical Association stands firmly for the selection of qualified applicants to our medical schools based on grades, ability and objectively measured criteria as determined by admission committees without regard to sex, race, or census status, and, be it further

RESOLVED, we believe that in passing the above resolved we reaffirm a basic American constitutional guarantee that "all men (and women) are created equal."

Recommendations, Reference Committee No. 2

Reference Committee No. 2 reviewed Resolution I—Qualification of Medical School Candidates (Pennyrile Medical Society) and recommends that it be rejected. The Committee suggests, however, that in view of the testimony before the Reference Committee the mechanism of medical student selection should be published in the *Journal* of the Kentucky Medical Association

A motion was made from the floor that the question of rejecting the Resolution and publishing the mechanism of medical student selection in the *Journal* be split. The motion was seconded and carried.

A motion was made, seconded, and carried that the Reference Committee's recommendation be accepted regarding the rejection of Resolution I.

The Reference Committee's suggestion that the mechanism of medical student selection should be published in the Journal of the Kentucky Medical Association was also rejected in a vote on the second half of the question.

Resolution O
Jefferson County Medical Society
Support for University Teaching Hospitals

WHEREAS, much public concern has been expressed regarding the efficiency of operation of University of Louisville Hospital, and

WHEREAS, various proposals have been set forth for administration of the new University Hospital, placing a high degree of emphasis upon operating efficiency of the hospital, and

WHEREAS, many public expressions have failed to take into account the threefold purpose of a university teaching hospital which is primarily teaching of medical students, postgraduate physicians and other allied health professionals and also the promotion of medical research as well as patient care, and

WHEREAS, these complex objectives bring accompanying needs for space, equipment and funding often not required of community hospitals, and

WHEREAS, the unique concerns of the Kentucky Medical Association are to assure all interests within the Commonwealth of the widest possible availability of the highest quality medical care at the lowest reasonable cost, now therefore be it

RESOLVED, that the Kentucky Medical Association urgently remind all parties involved in forming the administrative structure of the new University of Louisville Hospital and the Hospital continue to meet the three basic functions of a teaching hospital: namely, the advanced teaching of medical care to medical students, post graduate physicians and allied health professionals; the advancement of

medical research not available in community hospitals and provision of the highest quality of medical care to all patients regardless of their social or economic standing, and be it further

RESOLVED, that in accordance with the University Hospital's desire to continue to make medical care available to the indigent of the Louisville area on a long term basis that similar support as is provided to the University of Kentucky Hospital should be provided to the University of Louisville Hospital, and be it further

RESOLVED, that whatever the ultimate administrative structure of the new University of Louisville Hospital may be, that the hospital management must have an appreciation of the unique needs of a teaching hospital and that the University of Louisville School of Medicine must have direct input into the governance of the Hospital.

Resolution Q

Hopkins County Medical Society

University of Louisville Teaching Hospital

WHEREAS, the University of Louisville has served as a principal source of health professional manpower for the Commonwealth of Kentucky since 1933, and

WHEREAS, the construction and operation of a University teaching hospital at the University of Louisville represents a long-awaited and greatly needed resource that is essential to the University's fulfilling its mission in health professional education, and

WHEREAS, the proposal to construct the University of Louisville teaching hospital was clearly predicated on its functioning as a University teaching hospital with regional responsibilities, and

WHEREAS, the proposal was thoroughly scrutinized by numerous planning, funding, educational and regulatory bodies through the review process, and approval was based on the institution fulfilling a University teaching hospital mission, and

WHEREAS, tremendous strides have been made in the development of a regionalized health care system in which the University of Louisville plays a vital role where its teaching hospital will represent a major referral resource for western Kentucky and the Commonwealth, and

WHEREAS, in recent times questions have been raised by individuals regarding the mission of the hospital, its administration, and its governance, and

WHEREAS, any change that would significantly alter the mission of the University of Louisville teaching hospital, or remove its control from the parent University, or would place its administration in the hands of proprietary interests, or result in its administration through state government, would have a deleterious effect and be detrimental to health professional education and health care delivery in the Commonwealth, now therefore be it

RESOLVED, that the Kentucky Medical Association recognizes the unique and vital role of the University of Louisville teaching hospital in the preparation of health professionals, its participation in health-related research, and its service to the Commonwealth; and furthermore, the Kentucky Medical Association expresses its deep concern that to alter this role or modify the governance or the administration of the hospital would have serious negative impact on the vital interests of the Commonwealth.

Recommendations, Reference Committee No. 2

Reference Committee No. 2 reviewed Resolution O—Support for University of Louisville Teaching Hospitals (Jefferson County Medical Society) and Resolution Q—University of Louisville Teaching Hospital (Hopkins County Medical Society) jointly. After hearing testimony the Reference Committee recommends the adoption of the following substitute resolution in lieu of Resolutions O and Q:

RESOLVED, that the Kentucky Medical Association urgently remind all parties involved in forming the administrative structure of the new University of Louisville Hospital that the Hospital must continue to meet the three basic functions of a teaching hospital: namely, the advanced teaching of medical care to medical students, postgraduate physicians and allied health professionals; the advancement of medical research not available in community hospitals and provision of the highest quality of medical care to all patients regardless of their social or economic standing, and furthermore, the Kentucky Medical Association express its deep concern that to alter this role or modify the governance or the administration of the hospital would have serious negative impact on the vital interests of the Commonwealth, and be it further

RESOLVED, that in accordance with the University Hospital's desire to make medical care available to the indigent (non-reimbursable) of the Louisville area on a long term basis that adequate support from all sources be provided to the University of Louisville Hospital, and be it further

RESOLVED, that whatever the ultimate administrative structure of the new University of Louisville Hospital may be, that the hospital management must provide for the unique needs of a teaching hospital and that the University of Louisville School of Medicine must have direct input into the governance of the Hospital.

Resolution T

Medical Student Delegation

Medical Education Facilities

WHEREAS, the medical education program of the medical students of Kentucky is important to the citizens of the Commonwealth, and

WHEREAS, the class size and educational requirements of medical students have outstripped the size of the facilities, and

WHEREAS, the Governor of Kentucky has currently frozen construction of new facilities of importance to education and patient care in the medical centers, therefore be it

RESOLVED, that the construction freeze be lifted immediately with reference to these facilities, and be it further

RESOLVED, that the Governor of Kentucky be encouraged to take this action on behalf of medical education and patient care.

Recommendations, Reference Committee No. 2

Reference Committee No. 2 reviewed Resolution T—Medical Education Facilities (Medical Student Delegation). During the meeting the author of the resolution presented two revised resolveds, to serve in place of the resolveds appearing on the original resolution. The Committee recommends adoption of Resolution T with revisions to both resolveds. The original resolveds read as follows:

"RESOLVED, that the construction freeze be lifted immediately with reference to these facilities, and be it further

RESOLVED, that the Governor of Kentucky be encouraged to take this action on behalf of medical education and patient care."

The revised resolveds read as follows:

"RESOLVED, that the KMA encourages the Governor of Kentucky to lift the current freeze he has imposed on construction of new medical educational facilities in Kentucky, and be it further

RESOLVED, that the Governor be informed of the urgency of this matter and encouraged to act immediately to improve patient care and correct the current inadequacies of the existing medical educational facilities."

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 2 as a whole as amended.

I would sincerely like to thank the other members of the Committee: David L. Douglas, M.D., Frankfort, Veryl Frye, M.D., Somerset, Van R. Jenkins, M.D., Lexington, and Roy J. Meckler, M.D., Louisville for the time spent in listening to testimony and to those who made comments. A special thanks to Mrs. Cheryl Notter.

REFERENCE COMMITTEE NO. 2

John W. Kraus, M.D., Paducah, Chairman
David L. Douglas, M.D., Frankfort
Veryl Frye, M.D., Somerset
Van R. Jenkins, M.D., Lexington
Roy J. Meckler, M.D., Louisville

REFERENCE COMMITTEE NO. 3

James P. Moss, M.D., Louisville
Chairman

Reference Committee No. 3 considered the following reports and Resolutions:

17. Report of the Maternal Mortality Study Committee
24. Report of the Committee on National Legislative Activities
25. Report of the Committee on State Legislative Activities
36. Report of the Committee on Physicians' Health

Resolution C—Physician Membership on the Council on Higher Education (Pennyrile Medical Society)

Resolution L—Certification of Physician Assistants (Daviess County Medical Society)

Report of the Maternal Mortality Study Committee

The Maternal Mortality Study Committee meets approximately two times per year to discuss maternal mortality cases and to analyze the findings to determine if the causes can be alleviated in the future.

The Committee works in conjunction with the Kentucky OB-GYN Society and the Bureau for Health Services to determine which cases should be reviewed by the Committee. Because of legal reasons our review of these cases is usually done two years following the date of the death. From our analysis we determine the cause and make recommendations to prevent this problem from occurring again. Our findings are published in the *KMA Journal* routinely. Over the past 10 years we have noted a decrease in the maternal mortality rate.

Since 1966, when 34 maternal deaths occurred at a 5.8 rate, the figures have slowly decreased to the record low of eight deaths in 1978. The rate has been steadily coming down and can be attributed to an increase in emergency medical care services, referral of expected complicated cases to tertiary care facilities, and new developments in maternal care and techniques.

The Committee hopes that the cases presented in the *Journal* help to enlighten physicians to the problems that resulted in maternal deaths.

I would like to thank the members of the Committee for their assistance in preparing the case reports and the Bureau for Health Services for their cooperation and support.

John W. Greene, M.D., Chairman

Recommendations, Reference Committee No. 3

Reference Committee No. 3 has examined the Report of the Maternal Mortality Study Committee and is pleased that the Committee has implemented the recommendations of the House of Delegates this past year. The Reference Committee notes a lack of uniformity in the data presented in the report.

It is important that physicians whose cases are reviewed by the Maternal Mortality Study Committee should be invited to appear and be informed of the conclusions of the review. This information is not provided by the report. The Reference Committee recommends that the Maternal Mortality Study Committee should include these actions in its procedures.

Reference Committee No. 3 recommends that the report be adopted with the above recommendations.

Report of the Committee on National Legislative Activities

The Committee on National Legislative Activities saw a busy year, again, mostly on an individual basis between Key Men and their Congressmen. The Committee's most effective role is in communicating directly with our various Congressmen on different legislative health issues to maintain a credible concern as practitioners, as well as representatives of all physicians in the state.

Communication was made with members of Kentucky's Congressional delegation on issues ranging from pending health manpower legislation to proposed rules and regulations developed by the various administrative agencies of the government.

One of the notable administrative actions that the Committee dealt with this year was regulations published in the FEDERAL REGISTER on March 11, changing the reimbursement method under Medicare to hospital-based physicians. Essentially, the regulations called for payment of all "professional services" under Part B Medicare, rather than Part A. From KMA's view, the regulations would have resulted in the government determining what a physician service consisted of, and this would have obvious implications for all physician services in the future.

In addition to the Secretary for Health and Human Services, KMA's concerns were transmitted to each member of the Congressional delegation and through the AMA Washington Office. Fortunately, the rules were held in abeyance as a result of an injunction filed by individual physicians, the College of American Pathologists, and the Pathology Association in Arkansas. As of this writing, that injunction remains in effect.

A notable legislative concern was the FTC appropriations bill. This bill, which ostensibly extended appropriations for FTC operation, saw considerable activity. Among concerns of organized medicine were consequences of FTC involvement in the affairs of professional organizations to an unwarranted degree. The legislative product restricted the FTC from involvement in a number of areas, as well as Congressional veto power, which is a unique milestone in restricting an administrative agency. Further consideration will be given this issue when the Senate holds hearings later on in the year, specifically relating to FTC involvement in the activities of professional groups.

The Committee noted with sadness the retirement of Tim Lee Carter, M.D., from Congress at the end of this term. Doctor Carter has represented Kentucky's Fifth Congressional District for some 16 years, and has risen to a level of national prominence as a central figure in shaping key medical legislation over the years. He has steadfastly represented the views of organized medicine. In honor of his retirement, KMA was pleased to co-host a reception for Doctor Carter with the AMA as part of the annual Washington visitation. The reception was held on June 24th in the Rayburn House Office

Building, and guests included several senior members of Congress. Doctor Carter was presented with a testimonial gift by both KMA and AMA.

During this trip, KMA representatives were able to meet with each member of Kentucky's delegation and discuss such issues as cost containment, health manpower legislation, Medicare/Medicaid reimbursement, Federal regulations and other issues. Following these visitations a banquet was held honoring our Congressmen and was well attended by them. It was pleasant to note that Kentucky physicians were also in attendance in record numbers and the entire activity was very productive and worthwhile.

I would like to thank each of the members of the Committee whose efforts were critical in representing Kentucky medicine's views to our Congressional leaders. Their efforts, together with those of the AMA Washington Office, proved very effective.

Fred C. Rainey, M.D., Chairman

Recommendations, Reference Committee No. 3

The Reference Committee reviewed the Report of the Committee on National Legislative Activities and commends Doctor Fred Rainey for his activities on the Committee. The Reference Committee agrees that the physician is most effective when communicating directly with individual Legislators on health issues.

Reference Committee No. 3 recommends this report be filed.

Report of the Committee on State Legislative Activities

During the 1980 General Assembly the Committee on State Legislative Activities monitored and actively followed over 140 pieces of legislation. While we feel that KMA's efforts were extremely effective in most areas, several bills passed which we believed were not in the best interests of the citizens of the Commonwealth. The May and June issues of *The Journal of KMA* gave comprehensive reviews of the legislation involving health and medicine, and we shall not report on the overall General Assembly in this report.

The Committee on State Legislative Activities attempted to carry out House of Delegates' action in several important areas. Two major bills were introduced at the request of KMA as a result of House of Delegates' action, and a discussion of their legislative course follows:

1. **Physician's Assistants:** For three sessions the KMA has supported the introduction into the General Assembly of Physician's Assistants legislation only to find ourselves opposed to the end result. The Physicians' Assistants bill very rapidly becomes a political football with tremendous opposition from related health groups. During the 1980 session, nine separate groups sought to amend the legislation. However, some opposition also comes from physicians in the Commonwealth who oppose the certification of PA's. The Committee on State Legislative Activities is guided by two resolutions passed at previous House of Delegates' sessions. One resolution mandates that KMA support and present PA certification legislation, while the other resolution passed in 1979 requires our opposition to any PA legislation restricting specialties from employing and utilizing PA's. The Legislature has consistently refused to pass PA legislation without amendments restricting PA's under the supervision of ophthalmologists and anesthesiologists, and limiting PA's to the physician's office under the direct supervision of the physician-employer.

It is recommended that the House of Delegates give the Committee on State Legislative Activities new directives as to the position of organized medicine, particularly in view of the difficulties involved in trying to pass legislation that meets the criteria as set forth by the two previous resolutions. Considering these two resolutions, KMA is sometimes placed in a position of working for what seems to be contradictory goals. This reduces our influence in many other areas.

2. **Brain Death:** The 1979 House of Delegates passed Resolution I concerning the definition of Brain Death. The resolution, as passed, proposed that a definition be included under the Anatomical Gift Act. The Committee on State Legislative Acitivites and other groups spent considerable time in preparing legislation to meet the House of Delegates directions. We then sought out Legislators to introduce the legislation and found that unless various sections were deleted or amended, no sponsors could be found. After discussions with several individuals interested in this legislation, we placed the proposed legislation, which was differently worded, within the realm of the Medical Practice Act.

Legislative effectiveness during the General Assembly demands flexibility. To accomplish the intent of legislative goals directed by the House of Delegates requires the ability to modify and alter specific words and amendments to bills. Without this latitude to make minor changes on the spot to achieve larger objectives, our efforts are seriously hampered. When establishing legislative directives, we would urge the House of Delegates to provide guidelines and concepts and grant the Committee the concession to exercise flexibility on the specifics of a given bill.

On behalf of the Committee, we wish to express our sincere thanks to the 138 Key Men who worked so diligently during the General Assembly. They were extremely effective during the session, and whatever successes we had are due to their outstanding performance. My personal thanks are in order to the members of the Committee and the Board of Trustees and to the membership of KMA for their consistent and strong support during the General Assembly. I would be remiss if we did not recognize Jack Trevey, M.D., Senator from Lexington, for his patience and hard work with the Committee and staff on matters relating to health and medical issues.

Carl Cooper, Jr., M.D., Chairman

RECOMMENDATIONS

1. It is recommended that the House of Delegates give the Committee on State Legislative Activities new directives as to the position of organized medicine, particularly in view of the difficulties involved in trying to pass legislation that meets the criteria as set forth by the two previous resolutions on Physicians' Assistants.
2. When establishing legislative directives, we would urge the House of Delegates to provide guidelines and concepts and grant the Committee the concession to exercise flexibility on the specifics of a given bill.

Recommendations, Reference Committee No. 3

Reference Committee No. 3 considered the Report of the Committee on State Legislative Activities and commends Doctor Carl Cooper and the members of his Committee for their time and efforts on behalf of the Association during the year. Testimony before the Reference Committee, as well as Report No. 25, emphasizes that legislative effectiveness during the General Assembly demands flexibility.

Reference Committee No. 3 recommends the adoption of Report No. 25, as well as its recommendations.

Committee on Physicians' Health

Increasing attention by medical societies across the country is being given to impaired physicians. Medical association activities and expertise are certainly on the rise, and innovations are anticipated as experience increases.

As an indication of this, members of KMA's Committee on Physicians' Health have attended or plan to attend at least three seminars to be held this year, including AMA's Fourth Annual Confer-

ence on the Impaired Physician, scheduled at the end of October in Baltimore.

The Committee's efforts have remained consistent in trying to identify impaired physicians, and although we have been more active than in past years, we still have not had the involvement equal to the number of impaired physicians who are in active practice in the state. To publicize the Committee's availability, brief articles have appeared in the *KMA JOURNAL* each month, and mailings were sent again this year to individuals in all hospitals, telling of the Committee's activities and asking for referrals.

Included in the Committee's work this year was some consideration of insurance coverage for alcoholism and drug-induced impairments, and superficial review of the facilities and programs of some in-state institutions. Individual Committee members have also discussed our activities with local chiefs of medical staffs and county medical societies.

Contacts were also made with both medical schools with requests that orientation on the dangers and possibilities of impairment and addiction be presented to medical students. Along these same lines, the Committee is in the process of seeking to have senior family practice residents from both schools routinely attend our Committee meetings, which are held every other month.

The Committee was asked to have input into a brief, local television news show segment on the subject of impairments among physicians, but denied the request unless assurance could be given of proper treatment. Although the Committee was interested in an objective public discussion of the subject, it was felt that a brief news spot was far from adequate for the issue to be properly addressed. The Committee felt that if special scheduling were arranged with assurances of anonymity and the prerogative of previewing, that it would consider being involved, and a letter was sent to the television station to this effect. No reply has been received to date.

One of the Committee members developed a procedure for local identification and assistance of impaired physicians, which has been put into effect in his area. The Committee hopes to be able to make this plan available to any local area wishing to use it in the future.

Members of the Committee were involved in the local, private production of a film on the impaired physician, which may later be distributed to interested groups. This film is a dramatization of a physician suffering from an impairment, and its treatment of the subject is both stark and humane.

The bulk of the Committee's time was spent on dealing with individual referrals which were received from physician peers, local medical societies and one from another KMA Committee. Progress in these efforts does not come about in quantum moves, but we are encouraged by the fact that at least some referrals are seen, impaired physicians identified, and appropriate parties aware of the problem and working to try to resolve it.

The main trend running throughout our work continues to be frustration with the fact that more physicians are not identified, and we would urge all members to avail themselves of the Committee's help and concern. We continue to operate in the strictest confidentiality, with no thought to any sanctionary measures, and with the hope that our sincere and humane interest can be of assistance to the profession.

David L. Stewart, M.D., Chairman

Recommendations, Reference Committee No. 3

Reference Committee No. 3 reviewed the Report of the Committee on Physicians' Health and is pleased to note the increasing activities of the Committee. Its Chairman, Doctor David L. Stewart, and his members, are to be highly commended, and it is our hope that future activity of this Committee will have an ever-increasing role within the State.

Reference Committee No. 3 recommends this report be filed.

Resolution C

Pennyrile Medical Society

Physician Membership on the Council on Higher Education

WHEREAS, the Council on Higher Education has for many years had physician members, and

WHEREAS, physicians have served this Council well in the past, and

WHEREAS, the newly appointed Council by Governor Brown does not contain a single physician member, and

WHEREAS, physician education occupies a very important role in higher education, now, therefore, be it

RESOLVED, the House of Delegates of the Kentucky Medical Association respectfully requests and strongly urges Governor John Y. Brown to appoint a minimum of at least two practicing physicians to the Council on Higher Public Education in the interest of quality education not only for our medical students and our medical schools, but to better serve the needs of the citizens of the Commonwealth of Kentucky.

Recommendations, Reference Committee No. 3

Reference Committee No. 3 next considered Resolution C, Physician Membership on the Council on Higher Education, introduced by the Pennyrile Medical Society. The Reference Committee agrees with the intent of the resolution and feels that it is unwise to omit physician representation on the Council on Higher Education since medical education involves significant financial commitments, as well as manpower, within the State.

Reference Committee No. 3 recommends that Resolution C be amended by substitution of the following "Resolved:"

RESOLVED, the House of Delegates of the Kentucky Medical Association respectfully requests and strongly urges Governor John Y. Brown, Jr., to secure active physician representation on the Council on Higher Education in the interest of quality education, not only for our medical students, our medical schools and our practicing physicians, but also to better serve the health needs of the citizens of the Commonwealth of Kentucky.

Reference Committee No. 3 recommends the adoption of Resolution C, as amended.

Resolution

Charles H. McKelvey, M.D.

Certification of Physicians Assistants

WHEREAS, the House of Delegates of the Kentucky Medical Association has gone on record in support of legislation to certify physicians assistants in the state, but satisfactory legislation could not be established, and

WHEREAS, the need for such legislation no longer exists, therefore be it

RESOLVED, that KMA not support legislation to certify physicians assistants in Kentucky.

Recommendations, Reference Committee No. 3

The final matter considered by Reference Committee No. 3 was Resolution L, Certification of Physicians Assistants, introduced by the Daviess County Medical Society. Much concern was expressed about the unsupervised practice of medicine and the potential for abuses to the health of the people of our Commonwealth.

Reference Committee No. 3 recommends that this resolution be referred to the Board of Trustees for further investigation and implementation.

A motion was made from the floor, seconded, and carried that the word "implementation" be changed to "action." Therefore, Resolution L is referred to the Board of Trustees for further investigation and action.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 3 as a whole as amended.

Mr. Speaker, I sincerely thank the members of this Reference Committee for their participation and interest. Members of the Committee are Don E. Cloys, M.D.; Millard C. Loy, M.D.; N. H. Talley, M.D.; and John E. Trevey, M.D. I would also like to thank Mrs. Doris Crume for her assistance in preparing this report.

REFERENCE COMMITTEE NO. 3
James P. Moss, M.D., Louisville, Chairman
Don E. Cloys, M.D., Richmond
Millard C. Loy, M.D., Columbia
N. H. Talley, M.D., Princeton
John E. Trevey, M.D., Lexington

Following a short break, Thomas R. Watson, M.D., Louisville, took the podium as Chairman of the KEMPAC Board of Directors to present the annual KEMPAC Board report which follows:

Mr. Speaker, Fellow Delegates and Guests,

As Chairman of the KEMPAC Board of Directors, thank you for giving me the opportunity to report on KEMPAC activities this past year.

The seminar on Monday was well attended. KEMPAC received the AMPAC Award for first place in sustaining membership, second place for all events, and second place for contributions per member.

KEMPAC and AMPAC through candidate support committees have participated in five U. S. House races and a U. S. Senatorial race this year. AMPAC has contributed the major part of the support.

As many of you know, the courts have now ruled that KEMPAC and AMPAC are affiliated which limits the contribution to $5,000 for each election. The portion of your contribution to AMPAC is distributed on the national level and the portion for KEMPAC is primarily used in state races.

The membership in KEMPAC/AMPAC is 1,100, including 150 Sustaining at this time. When you consider the percentage of KMA membership, this is very low, however, I do want to say that the physicians who are involved are really working in your best interest, but we need more of you.

The KEMPAC booth is set up in the lobby near the headquarters office here in the convention center. We invite you to stop by and make your contribution. You can pay by Visa or Master Charge if you don't have your checkbook with you. Sustaining membership is $100 and family membership is $50.

In 1979, as in past years, the KMA House of Delegates reaffirmed its belief in the objectives of KEMPAC and AMPAC and recommended 100% participation by doctors and their spouses. It further recommended a vote of endorsement and encouragement of the KEMPAC organization to continue its worthwhile political efforts on behalf of our free enterprise system and the freedom of the art and science of medicine.

I recommend that you reaffirm this endorsement and approve KEMPAC billing with the KMA dues billing. I wish to ask that you include your contribution when sending in your other dues. This is your organization and you must support it.

On behalf of the KEMPAC board, I want to thank the KMA Board of Trustees, you delegates, the auxiliary to KMA, and staff for your help and support.

Following Doctor Watson's presentation, a motion was made, seconded, and carried to accept the KEMPAC report.

REFERENCE COMMITTEE NO. 4

Peter P. Bosomworth, M.D., Lexington
Chairman

Reference Committee No. 4 considered the following reports and Resolutions:

12. Report of the President, Kentucky Blue Cross and Blue Shield
20. Committee on Medical Insurance and Prepayment Plans, **except** Section on Coterminous Board Membership on Pages 20.10 and 20.11 (referred to Reference Committee No. 6)
23. Claims and Utilization Review Committee
33. Committee on Health Care Costs
39. KMA Advisory Committee to KPRO

Resolution E—Hospital and Physician Reimbursement by Third Party Carriers (Pennyrile Medical Society)

Resolution J—Withdrawal from KPRO (Pennyrile Medical Society)

Resolution N—Procedures for Claims and Utilization Review Committee (Jefferson County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 4 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

12. Report of the President, Kentucky Blue Cross and Blue Shield—filed
20. Committee on Medical Insurance and Prepayment Plans, **except** Section on Coterminous Board Membership on Pages 20.10 and 20.11 (referred to Reference Committee No. 6)—adopted
23. Claims and Utilization Review Committee—filed
33. Committee on Health Care Costs—filed
39. KMA Advisory Committee to KPRO—filed

Lynn L. Ogden, M.D., Delegate from Jefferson County, was recognized, who made a motion that Report No. 12 (President, Blue Cross and Blue Shield of Kentucky) be removed from the Consent Calendar. The motion was seconded and carried.

Report of the Committee on Medical Insurance and Prepayment Plans

Resolutions L& Q were passed by the KMA House of Delegates in 1978. Resolution L asked that a committee be appointed to discuss several issues having to do with participating physician agreements with third party carriers, while Resolution Q addressed problems with primary care reimbursement and the makeup of the Advisory Committee to Blue Cross and Blue Shield. One of the recommendations of the Ad Hoc Committee which took up these issues was that the name of the Advisory Committee to Blue Cross and Blue Shield be changed, its scope broadened and its membership more representative of the specialties in Kentucky. This Committee was established to carry out that recommendation.

Because a specific charge was not given the Committee when it was appointed, we discussed what we felt our role should be, based on the deliberations of the Ad Hoc Committee on Insurance Procedures and Primary Care Reimbursement. The results of that discussion were referred to the Board and were approved. The role of the Committee is to hear problems and plans of third party carriers, serve as primary liaison with carriers for KMA and to speak on

behalf of KMA to address problems or suggestions the Association might have. In addition, we plan to establish a system for rotating Committee members on and off the Committee using one, two and three-year terms, specifying that no member may serve more than 10 years.

The Committee met three times this year. The meetings were highly informative and I appreciate the enthusiastic participation of the Committee members who attended; the cooperation of the Kentucky Department of Insurance represented by Mr. Gil McCarty, Director, Department of Life and Health, and representatives of the major third party carriers.

Because of the number of issues the Committee has been asked to address, this Report will follow the format of listing the recommendations from the Ad Hoc Committee on Insurance Procedures and Prepayment Plans which were passed by the House last year, followed by a summary of our discussions on each item and finally, where appropriate, our recommendations.

Primary Care Issues (Resolution Q, 1978)

"KMA should urge carriers to do a better job of explaining what health insurance covers and encourage employers to do a better job of explaining benefits to employees. Insurance companies should advise individual policyholders of coverages."

The Ad Hoc Committee found that many contracts were often difficult to read and interpret and it felt some effort should be made by carriers to make contract language easier to understand. It also felt carriers should make greater efforts to educate policyholders of exactly what services are included in the policy and which are excluded. Mr. McCarty noted that he is the Administrator for the plan which covers all state employees. The state developed a brochure written at the seventh grade reading level explaining the benefit package. However, Mr. McCarty said he still gets a number of requests daily asking what is and is not covered.

Following a lengthy discussion, it was the consensus of our Committee that although many coverages are adequately explained, people do not take the time to read them and often do not care what their coverage is until they have to call on their insurance. There has been a major effort to write benefit descriptions in laymen's language over the past few years, and we felt this effort has been so recent that its effects may not yet have been realized.

There is a trend toward simplifying policy coverage descriptions and this hopefully will alleviate some of the problems which have arisen in the past.

"KMA should urge all carriers to make a reasonable effort to develop and market broader coverage plans to include provisions for primary care. KMA should actively support these efforts."

Many older plans have accident and surgical benefits but do not cover services rendered by primary care physicians. The practice of medicine has changed over the years but coverage for services often has not. Cited was an example of a coronary patient who is hospitalized and who may demand a considerable amount of primary care physician's attention. However, the patient's policy may allow a $5 per day hospital visit with the remainder of the financial burden going to the patient. Mr. McCarty noted that he is observing carriers continuing to upgrade their coverage and stated that many excellent coverages are available. The problem is that the public may not be purchasing them because they are simply priced out of the market for many people. There is a second problem in that employers often pay the cost of the insurance and may not want to absorb the high premium cost. Mandating minimum coverages is not desirable since there is a certain segment of the population who could not afford even a minimum amount of coverage.

It was pointed out that one of the major concerns of primary care physicians has been that many payments for services rendered by a primary care physician are unreasonably low, particularly under indemnity contracts.

Again, the issue of premium was brought up. Many of the better policies pay for primary care services but many of the cheaper, older indemnity policies do not and companies, no matter how hard they try, can only sell what the public will buy.

The question was raised as to whether or not policies could be redesigned across the board to be more equitable to primary care physicians. It was noted that the possibility does exist and the Committee asked the representatives present to take a look at their coverages and let the Committee have their ideas on what might be done to better equalize payments. No suggestions, so far, have been sent to the Committee.

The Committee feels that one reason primary care physician reimbursement may be inappropriate in some instances is that the primary care physician may tend to bill the insurance company the charge they know will be paid rather than their actual fee. It would be helpful to the Committee to have specific data and particular examples of inadequate payments to primary care physicians for us to discuss with carriers.

"KMA should undertake an educational program on insurance coverages, perhaps in the form of pamphlets in physicians' offices or enclosures for statements, and make an effort to better educate office and hospital administrative personnel on what coverages are."

The Committee reviewed an excellent booklet prepared by the American Medical Association on this subject. The Board approved our recommendation that copies of the booklet be mailed to each Kentucky physician with the hope physicians would in turn make copies available to their patients. The booklets, "Let's Talk About Health Insurance," were distributed in late summer.

"KMA should encourage and support continued experimental programs to prevent retroactive denial of diagnostic admissions. KMA should encourage reliance on medical review systems to help determine instances of questionable medical conditions, as opposed to true diagnostic admissions."

The commercial carriers felt that there was not a great problem with retroactively denying payment to a hospital and/or physician because the admission was for diagnostic purposes. The commercial carriers noted that as long as there was a reason for that admission noted by the physician, the bill would be paid, within policy limitations. Blue Shield excludes payment for such admissions. Blue Shield representatives pointed out that they are experimenting with this issue at the present time and that in some instances will guarantee payment even if an admission is diagnostic in nature. It was noted it is unfortunate that when denials are made, the patient is held responsible for the hospital and physician's bill even though he was acting on the direction of his physician. The physician, in turn, is in an uncomfortable situation in that he is acting in good faith and genuinely felt that there was a medical problem when the patient was admitted. We feel that some monitoring must be done and that proper documentation would be helpful in preventing retroactive denial of diagnostic admissions.

The Committee learned that it is difficult to compare the various coverages offered by commercial carriers and Blue Shield. Definitions of terminology often differ; the various plans have significant differences in administration and Blue Shield, because it is nonprofit, has a much more stringent state regulatory mandate with which to comply.

While some carriers would appear to have a more liberal reimbursement policy, upon closer examination, we sometimes found that was not necessarily the case.

"KMA should request the KMA Committee on State Legislative Activities to investigate Kentucky health insurance laws with regard to policy modifications, and attempt to determine if legislative action would be desirable and appropri-

ate to change policies with greater ease, keeping in mind quality of care and the range of financial resources available to Kentucky citizens."

Based on our discussion with Mr. McCarty, we feel that perhaps the real problem is not with Kentucky law, but with legal decisions that have been rendered federally and which serve as precedents. Essentially, companies selling group insurance plans which are headquartered in a given state are governed by the laws of that state even though the policy beneficiaries may reside in a different state. Cited as an example was a large company such as General Electric or Ford Motor Company which may have national coverage provided by a company in Michigan. The only jurisdiction over that coverage would be Michigan law. Kentucky cannot legally influence the policy configuration even though the policyholder may live in Kentucky.

There is another problem inherent in attempting to change legislation and that is the perspective of the legislators. Attempts to change existing insurance laws by KMA would be made in an effort to protect policyholders from inadequate coverage which in some cases could result in a family's financial devastation. Lawmakers, on the other hand, could see these efforts as detrimental to patients because providers of care and insurance companies might appear to be getting together to "force" higher priced coverage on individuals. It appears that a more suitable alternative would be that of increased patient awareness of insurance coverages to make them a cost-conscious shopper in the insurance marketplace. This may be accomplished, in part, by a public education program implemented by the KMA Speakers Bureau.

"KMA should work with insurors and urge them to develop primary and surgical coverage for concurrent care for hospitalized patients."

Payments for services performed by two or more physicians on the same patient are usually covered if the insurance contact includes this item as a covered benefit and if the concurrent care is appropriate. The Committee feels that insurance should be complete for the total care of the patient. A policy should be developed, we feel, which would address appropriate concurrent care reimbursement but recognize that concurrent care may be sometimes confused with "social calls." We recommend that this matter be referred to the KMA Interspecialty Council for further discussion and development of recommendations which could be adopted by KMA as guidelines on concurrent care reimbursement.

"KMA should work with insurors to make pre-existing condition determinations more flexible so that patients with chronic conditions won't be penalized, or acute conditions not be covered, through no fault of the policyholder."

A pre-existing condition is defined by most carriers as a condition for which the patient received medication or services three months prior to the effective date of the policy.

It was noted that this issue goes back to money again, and coverage for pre-existing conditions is found in the better policies but is more expensive. Also, the coverage benefits from a group will often differ from that of an individual plan. It was our consensus that there is not a major problem with most group policies. The Committee will continue to examine coverages for pre-existing conditions offered by companies, particularly those which exclusively sell single contracts.

The Committee also considered several items referred to it from the KMA Ad Hoc Committee on Health Costs. We understand that those recommendations are among those being addressed by the Kentucky Voluntary Effort for Health Cost Containment. As a result, they will not be discussed in this report.

The Committee felt that it would be appropriate with cost savings in mind to recommend that third party carriers pay the cost of the materials used when emergency procedures are done in a physician's office thereby saving the cost of an emergency room visit. Many physicians are reluctant to perform any minor procedures in their office because supplies are generally furnished in the emergency room. However, the total cost to the carrier is much greater when the procedure is performed in the emergency room and many third party payors will not pay for such procedures unless they are done in the hospital.

The commerical carriers noted that they pay for services in a physician's office, but that the benefit is not available in all policies. Blue Shield noted that it does make an allowance for supplies but felt that those items should be incorporated into the physician's fee as part of his overhead office expense.

Blue Shield UCR Program (Resolution L—1978)

Much of our effort this year has been devoted to Kentucky Blue Shield's Usual, Customary and Reasonable Plan, specifically the Participating Physician's Agreement and assignment of benefit payments to non-participating physicians, and the prohibition against officers of KMA simultaneously serving as Board members of third party insurance carriers.

The policy established by the House last year concerning participating physician's agreements states:

"Because signing third party participating agreements is a voluntary prerogative of each individual physician and because the KMA prefers to set no policy that might in the future be construed by outside interests as interfering with the free marketplace concept of medical care, the KMA henceforth should not associate itself in name or deed with the Participating Physician Agreement of the BCBS UCR Program or ***with the Participating Physician Agreement** of any other third party insurance carrier's program."

(*phrase added by Board of Trustees for clarification)

We noted that the Board of Trustees' interpretation of this recommendation's intent is that the restriction be limited to and relate solely to KMA not taking a position, either pro or con, relative to any physician's decision concerning an insurance carrier's participating physician agreement. Doctor Monnig, the author of the recommendation, and a member of our Committee, concurred with that interpretation.

Assignment of Benefits

"Voluntary patient requests for assignments of physician reimbursement should be honored by all insurance carriers."

"This policy should be followed with the understanding between the physician and the patient that the amount submitted to the carrier is the full fee charged to the patient."

The Committee has thoroughly investigated the policy of Kentucky Blue Shield to no longer allow assignment of fees to non-participating physicians under the UCR plan in accordance with their contract. We have investigated the legality of the Blue Shield stand and it is legal. There are no statutes requiring or prohibiting them from allowing assignment of fees to non-participating physicians. The statutes are silent on this issue. KMA has formally advised Kentucky Blue Shield of our stance and Blue Shield representatives have taken our recommendations back to their Board of Directors and we are awaiting their reply.

Representatives of Kentucky Blue Shield were in attendance at our meeting on April 2 and were asked to provide the history of the Blue Shield UCR Plan and the events leading to Blue Shield's decision to discontinue direct reimbursement to physicians not participating in the Program.

The Blue Shield UCR Program was established several years ago in answer to a request by major employers in Jefferson County to develop a "paid-in-full" program. The pilot project in Jefferson County proved successful and the concept was expanded statewide. The concept of the UCR Program is based on the agreement of both the physician and the carrier to accept the decision of a Peer Review Committee, should the fee charged be outside the usual, customary, and reasonable charge guidelines. Because the Program was new,

Blue Shield elected to pay all physicians direct in an effort to acquaint them with the benefits of the Program. As time went by, over 82 percent of the doctors in Kentucky signed participating agreements. In the meantime, Blue Shield was beginning to receive inquiries from participating physicians as to why they were making a commitment to peer review in order to participate in the Program, while other physicians who were making no commitment were receiving the same benefits of the Program. That, coupled with an increasing cost of handling claims from non-participating physicians, led to the decision in 1978 of the Blue Shield Board to no longer honor voluntary assignment of benefits. In addition, many physicians have expressed a preference to deal strictly with the patient and not with a third party carrier.

Another item discussed by our Committee was a recommendation to try to set up a mechanism to inform Medicare recipients what is and is not covered under this program. We felt that Medicare recipients are often ill-informed of what coverages Medicare includes and it would be helpful to them to have a clearer understanding of the program. KMA's Speaker's Bureau, started by Doctor Howell, has been asked to implement this item. In addition, we were pleased to learn that the Kentucky Department of Insurance is working on a regulation to establish minimum standards for coverage in Medicare supplement plans. While many companies offer excellent Medicare benefit supplements, some do not. The Committee feels that minimum standards will assure that senior members of our community are offered appropriate coverages.

The Committee discussed assignment of benefits under Blue Shield Major Medical Programs. There is a trend for patients to collect major Medical benefits, but not settle their account with their physician. Blue Shield has cited several reasons payments are made to the patient. However, we understand that Blue Shield is exploring the possibility of accepting assignments under Major Medical and we encourage Blue Shield to continue their efforts to pay physicians directly for services covered under Major Medical Plans.

Other areas covered by the Committee include out-patient surgery performed in Physician's offices; sharing diagnostic findings to avoid duplication of tests and procedures; patient education programs; health maintenance organizations and other forms of prepaid health coverage.

This year has been one of organization and background for the Committee. We spent a considerable amount of time discussing health insurance issues and found that there are few easy answers.

We will continue to address health insurance coverages but urge physicians to make an individual effort to educate patients on the desirability of better coverage, particularly in the area of primary care coverage. I appreciate the interest of the Committee this year and their patience in tackling what at times seems to be an overwhelming problem.

I would also like to express my appreciation to Kentucky Blue Cross and Blue Shield, Aetna Life and Casualty, Travelers Insurance Company, Lincoln Income Life, and Equitable Life for their time and cooperation in attending our Committee meeting. Special thanks goes to Mr. Gil McCarty, Deputy Commissioner for the Department of Insurance, for the time he has given the Committee and for his expert help in explaining the maze of Kentucky statutes and regulations under which carriers operate.

Earl P. Oliver, M.D., Chairman

RECOMMENDATIONS

1. It is recommended that a policy be developed which would address appropriate concurrent care reimbursement, realizing that concurrent care may sometimes be confused with "social calls," and it is also recommended that this matter be referred to the KMA Interspecialty Council for further discussion and development.

Report of the Claims and Utilization Review Committee

This year the Claims and Utilization Review Committee prescheduled quarterly meetings for the year, rather than calling them as needed. This appeared to be convenient for attending physicians and carriers, and will be continued.

Regularly scheduled meetings of the Committee have become necessary because of the volume of claims to be reviewed. This volume has not increased this year, but additional meetings have been necessitated because of the need for timeliness of review. One of the guidelines of the review system is that if cases are not reviewed within 60 days at the local level, the carrier may request their adjudication by the state Committee. This is a trend that the Committee feels the membership should be aware of.

The Committee is aware of the difficulties local groups have in scheduling meetings to review cases, but very strongly feels that the first level of review should be at the local level, where committee members have the best knowledge of local conditions and situations.

The bulk of cases reviewed continues to involve questions of utilization of hospital services and necessity of hospitalization. These situations pose a serious difficulty often times on the patient. If hospital admissions are denied after the fact, many times the burden for payment of institutionalization falls on the patient, who essentially has no control as to whether or not he is admitted. The Committee would urge each member to carefully consider the necessity of hospitalization and, within the bounds of appropriate medical care, avoid it when possible.

Cases were reviewed this year that had been submitted by the Medical Assistance Program. Some members have questioned whether or not the Medical Assistance Program has the authority to review records, and it should be pointed out that this is their due, apparently, by statute. In-office Medicaid review, however, should be at the mutual convenience of the Program representatives and the physician, and should be undertaken in a cooperative manner by both parties.

Along these lines, the Committee has observed that many cases would probably not be questioned and at least would be much more easily scrutinized, if physicians would pay closer attention to keeping appropriate records. This comment is not intended to imply that poor records are generally kept; however, many questions could be quickly answered by fuller documentation in records.

Some precedent type cases were seen this year for new procedures and new techniques. In these instances, it is often difficult for the Committee to render a decision because, by definition, these situations do not often occur, so here is little or no experience from a clinical standpoint by which to adjudicate them.

To assist the local communities, it may be appropriate to restate some of the administrative things that can be done, such as payment for conference calls; abbreviated reporting forms for advising the Headquarters Office of claims decisions; the capability to mail out meeting notices and follow-up letters for local communities; and reimbursement of local committee chairman for direct expenses incurred for mailing, postage, and so forth.

My sincere thanks to the very faithful and hardworking members of this Committee, who serve without compensation, except for the interest in the peer review system.

William J. Sandman, Jr., M.D., Chairman

Report of the Committee on Health Care Costs

The KMA Committee on Health Care Costs held one formal meeting this year. Your Chairman continues to participate in the

Kentucky Voluntary Effort for Health Costs Containment, thereby serving as a liaison between the VE, KMA's Committee and the Board of Trustees.

The Committee held lengthy discussions on the factors influencing health costs and it was the consensus that one of our activities might be to provide specific recommendations to Kentucky physicians which, if enacted, would help control costs. As a result, the *KMA Journal* carries monthly cost containment suggestions which the Committee hopes the membership will find useful.

We also felt KMA should undertake a more prominent role in communicating with the opinion-makers in our communities to let them know what medicine has been doing on behalf of the public in the area of health costs. We were pleased to see that President Howell established a speakers' bureau and that one of the areas suggested for discussion is health costs.

KMA still participates in the activities of the Kentucky Voluntary Effort for Health Costs Containment, which was successful in having a joint resolution passed by both Houses of the Kentucky General Assembly urging legislators to call upon the Voluntary Effort for input when considering legislation which would have impact on health costs. Statistics have been released from the National Voluntary Effort over the past two years showing that the rate of increase in health costs has dropped, even in the face of extremely high inflation.

The Committee commends Kentucky physicians for their efforts to restrain increases in health costs, both in their office practice, as well as in the hospital, and urges a continuing commitment to this very complex issue.

Walter I. Hume, Jr., M.D., Chairman

KMA Advisory Committee to KPRO

Local and national developments relative to PSROs occurred during the past year. They are detailed below.

National

The Department of Health, Education and Welfare has become the Department of Health and Human Services with the creation of a separate Department of Education. In this report, therefore, the term HEW has been replaced with HHS.

HHS has conducted yet another evaluation of the PSRO Program nationwide. The 1979 results pleased Doctor Helen Smits, head of the Health Standards and Quality Bureau (HSQB), who remarked that though some areas of the country are doing a better job than others, the overall results show that the Program works at an impressive level. The report shows an overall decrease in Medicare hospital utilization and a drop of 4.7% in Medicare days in the Northeast. She added that her agency desires to work with below-par PSROs to improve the latter's performance.

A sour note was injected by the Congressional Budget Office, which noted that no real savings are occurring because the savings are passed on by hospitals to private pay patients. This view has been challenged vigorously and properly by government and local PSRO officials as patently unfair. What CBO should have questioned, these officials point out, is why similar review mechanisms are not in place among private third-party payors.

Regarding PSROs with poor performance, HHS has to date discontinued funding of six PSROs. Reasons included inadequate performance of PSRO functions and mismanagement of federal money. At present there are 186 conditional PSROs; an additional three are in the planning stages. HHS has published criteria for evaluating PSROs to become fully designated. This full designation was intended by law to come about after a period of time under conditional status (48 months), and after the accomplishment of certain tasks, such as long-term care review. The practical effect of full designation, which KPRO will probably reach in the next few months, is slight.

After a shaky start, the National Professional Standards Review Council has approved a set of national goals for PSROs. The Council rejected the goals in Fall, 1979, because it believed they undermined local control promised to PSROs by Congress when the Program legislation was enacted. HHS contends, however, that local control will continue, using the national goals as a framework, only, within which to determine local objectives. This "from the bottom up" approach has been accepted by most PSROs. The goals include the following: (1) reduction of inappropriate variations in utilization in acute care settings for Medicare and Medicaid patients; (2) reduction of inappropriate variations in surgical rates, particularly for cholecystectomy, hip arthoplasty, lens extraction, and prostatectomy; (3) elimination of nonphysician-ordered ancillary services and the reduction of physician-ordered ones; (4) maximization of Program effectiveness within a national average of $8.70 per discharge; and (5) elimation of grossly poor quality care.

The controversy continues to simmer over confidentiality and the lawsuit filed over PSRO data by Nader organization Health Research Group. The case has now been heard by the U.S. Court of Appeals in Washington; decision is not expected before December, 1980. Whatever the outcome, the case is certain to be appealed to the ultimate arbiter, the U.S. Supreme Court, as it presents issues of statutory interpretation, legislative intent and administrative law.

Attorneys for the National Capital Medical Foundation (NCMF), the PSRO that was sued, argued that the Freedom of Information Act (FOIA) was not meant to apply to PSROs. Furthermore, the Act has certain exemptions within which the PSRO would come if it were a Federal agency, attorneys added.

In arguing that PSROs are not agencies of the Federal government, NCMF pointed out that their relationship with HHS is completely contractual, their employees are not Federal employees and they have no right to use the Federal Register. PSROs also set their own norms and standards and aren't regulated on a day-to-day basis.

In opposition, the consumer attorney insisted that PSROs are agencies because the government delegates payment decision-making authority directly to the PSRO, that PSROs were intended to be Congress' major cost containment program and that the fact that PSRO employees are not civil servants is irrelevant. He further submitted that HHS has total control over the Program. The judges seemed interested in finding out more about how a PSRO is structured and how it functions, asking who are members of a PSRO, if physicians are salaried, if PSROs existed before the statute and what kinds of control HHS has over a PSRO.

A quite recent development increases the chances that the Supreme Court will ultimately hear the case. There is now a conflict among the lower federal courts on the question; in mid-June a Pennsylvania federal district court ruled in favor of the Philadelphia PSRO in an FOIA suit filed against it by a local hospital. In the case, **St. Mary's Hospital v. Philadelphia PSRO,** Judge Green found that the PSRO had argued "quite correctly that in creating the PSRO system of review, the Congress intended that the PSRO be a private, non-governmental body." Significantly, one of the cases relied upon by the court was a recent Supreme Court case that developed a definition of agency as one in which extensive, detailed and virtually day-to-day supervision must occur. This case was not yet handed down when Judge Gesell ruled on the Washington PSRO question.

Of much interest to PSROs this past year was the launching of new Federal guidelines on quality assurance. Called a Quality Review Program that will conduct Quality Review Studies, the new policy gives greater freedom than before in choosing specific quality assurance methods. While not specifying details, the guidelines do suggest what constitutes an acceptable study, including:

- problem or potential problem identification

- data gathering and peer analysis
- intervention for problem resolution
- follow-up mechanism to assure the problem was resolved or reduced to documentation and reporting of the study process and outcomes.
- In addition, each must:
  - have physician involvement
  - utilize written explicit criteria
  - include peer review and a follow-up phase
  - be documented and reported to the PSRO.

Apparently, an HHS task force has decided tht PSRO reviews of long-term care should be assigned a low priority until the Department has ranked its goals for improving health care for the elderly. Some 54 PSROs are now funded to review long-term care, with 3,000 facilities under review. Indeed, funds are so limited that some PSROs complain of inability to operate within budgetary limits. Projections by the HHS task force recommend extending funding only to an additional fifteen PSROs in the coming year.

The process of appropriating money for the PSRO Program for next year began with the Administration, impressed with the Program's positive impact, recommending a 34% increase in the Program's budget. The initiative is now with Congress; the Senate and House are heading toward a conference to work out differences in their respective appropriation measures. Congress has been hearing from individual physicians and other health professionals who support the Program, and also from segments of private industry who have contracted for PSRO services in private insurance schemes. The increased funding effort has its detractors also, among them some Congressmen who feel that savings of $1.30 for every $1.00 spent are either inaccurate, or not dramatic enough. Strong letters of support from the American Medical Association have strengthened the expanded funding effort.

Local

KPRO is in the process of formulating its organizational objectives for the coming year; they are expected to track at least in part the national goals drafted by HHS (see above). KPRO's current objectives and their progress to date are as follows:

1. Reduce the number of patient days required for skilled nursing care placement from 8,790 days a year to 7,880 days a year by September 30, 1980.
   Status: After analysis pointing to facilities with a high number of placement days, those hospitals were asked and agreed to participate in an MCE-like survey. The data thus obtained will be reported to the state's HSAs for the latter's use in planning and recommendations for new long-term facilities.
2. Reduce the utilization of inpatient respiratory therapy services in general hospitals in the state by September 30, 1980.
   Status: An MCE study of IPPB services was conducted in 78 hospitals—29 nondelegated and 49 delegated. The results are being analyzed as of this writing by a physician pulmonary specialist. He has found indications of poor practice patterns; the study recommendations will reflect these findings.
3. Reduce overall length-of-stay in the top LOS hospitals by one-half day by September 30, 1980.
   Status: Six hospitals were targeted for visits. One hospital opted for nondelegation; one reportedly has already lowered its LOS, which KPRO will verify; three are conducting MCE studies; and one has been placed on probation, with nondelegation to follow if there is no improvement.
4. Increase the efficiency of Health Care Coordinators (HCCs) from 1,800 admissions per HCC to 2,600 admissions per HCC by January 1, 1980.
   Status: This objective was completed successfully and KPRO is now doing more reviews with less personnel. Among the techniques used directly or indirectly were reorganization or consolidation of HCC assignments; focusing review; and reduction of personnel by attrition.
5. Improve the quality of care in Kentucky hospitals by providing increased emphasis on an interface between KPRO statistical and clinical profiles and specialty societies' quality assurance efforts by July 1, 1980.
   Status: Achievement of this objective was contingent upon receiving grant money applied for in Fall, 1979. While efforts will continue, unfortunately the grant was rejected in May, 1980.
6. Exempt 95,064 federal beneficiary inpatient hospital admissions from concurrent review by February 1, 1980.
   Status: This objective has been completed successfully. Focusing by physician within a hospital is a review technique that exempts from concurrent review those physicians whose prior admissions data indicate do not need day-to-day review. Data forms are still completed for each patient, however, and retrospective review may indicate that concurrent review is again necessary. This has, in fact, happened at KPRO, though in only limited instances. As of this writing, 1,374 physicians have been focused out in 71 facilities, representing 132,585 potential discharges.
7. Increase KPRO membership by 350 physicians by September 30, 1980.
   Status: This objective has been completed. At the present time there are 4,887 physicians in Kentucky. Of this number, 3,259 physicians—67%—are members of KPRO. The main impetus for this increase over last year's figure of 59% was a direct mail membership solicitation campaign in November, 1979.

During the past year, KPRO requested and received a Federal waiver of the MCE "minimum numbers" requirement for state hospitals in order to tailor audit requirements more closely to the state's often smaller rural hospitals' capacities. Presently the MCE staff is planning how best to implement the new Federal guidelines on quality assurance (see above).

KPRO progress in establishing a data base and review mechanism for ancillary services has come in two general areas: (1) Identifying and securing specific ancillary data and (2) developing a mechanism for data processing and report generation. Efforts to identify and secure the ancillary data have included discussion with Blue Cross-Blue Shield representatives with an eye toward using copies of billing tapes developed from claims by the insurance company. Potential hitches in the system are still being identified and corrected; as yet no reports have been generated.

In the area of long-term care review, KPRO and the Kentucky Department for Human Resources reached agreement in the Fall of 1979 on the review of free-standing Intermediate Care Facilities. Review in those facilities had begun by November, 1979; KPRO review is now in place in all SNF and ICF long-term care facilities in the state. KPRO enjoys amicable professional relationships with both the state regulatory agency and the Kentucky Health Care Facilities Association, which represents much of the industry.

The KPRO Board continues to express concern about the national implications of the confidentiality assault on a Washington, D.C. area PSRO (see above). The Board's resolve is as strong as ever to dissolve KPRO immediately should PSROs be required to turn over physician or patient specific data to consumer or other groups. KPRO has the strongest possible confidentiality policy in place and feels that disclosure of such data is a totally unacceptable trade-off to make in the name of peer review. In the view of the Board, disclosure of this kind of sensitive, raw data subverts a system of peer review into speculative and uninformed public or media review.

CONCLUSION

The past few months have been productive and satisfying for KPRO. We have increased membership, fulfilled our commitment

to review long-term care, succeeded in focusing out from review more than a quarter of the state's physicians, and eased the burden on small hospitals of having to perform an arbitrary number of MCE studies.

The physician, acute care and long-term care communities continue to cooperate with us in a most gratifying way—without their advice and assistance our efforts would be infinitely more difficult. We stress that this continued cooperation is in everyone's interest. Utilization review is, of course, here to stay; how much more preferable to have it directed by Kentucky's physicians in a spirit of true peer review. Peer review conducted by outsiders would be but a hollow facsimile.

Gabe A. Payne, M.D., Chairman

Report of the President, Blue Cross and Blue Shield

It is my pleasure to provide the KMA House of Delegates with a status report of the operations of Blue Cross and Blue Shield of Kentucky. The report will cover enrollment, benefit payments, utilization patterns, new products and programs, and issues and concerns.

Blue Cross and Blue Shield of Kentucky had grown to 1,576,499 members as of December 31, 1979, which is 45% of the population of Kentucky. This membership includes over 111,000 people who are enrolled in the Medicare Supplement programs. In addition to basic coverage, some 1.1 million members carry a Major Medical, or catastrophic, type coverage. In the current environment, we are beginning to see a slowdown in overall enrollment growth. As of June 30, 1980, membership had decreased to 1,554,816. This leveling off is the result of the general state of our economy. The recent layoffs are affecting some of our larger groups and will likely contribute to a decline in membership by the end of 1980.

Claims volume for all programs continues to increase. During 1979, Blue Cross and Blue Shield of Kentucky processed 3,274,497 claims for services rendered by providers. Physicians and other providers throughout Kentucky were reimbursed over $307 million for services rendered to members with underwritten coverage, and an additional $245 million for services rendered to Medicare recipients. The Plan continues to be financially sound, with adequate reserves to meet benefit payment projections.

There continues to be a demand for benefit programs under the usual, customary and reasonable payment mechanism. Currently, we have over 400,000 members covered under the Blue Cross and Blue Shield Usual, Customary and Reasonable Program, and membership continues to increase. In 1979, 305 physicians signed participating agreements for the UCR Program, which brought the total number of participating physicians to 3,356. This represents 82% of the practicing physicians in Kentucky.

Blue Cross and Blue Shield of Kentucky continues to provide leadership in improving the existing benefits and expanding benefits. Some examples include:

- The Blue Shield Indemnity Schedule F, first marketed in 1979, includes an improved surgical schedule and an improved level of benefits for inhospital medical care. Currently, there are over 202,000 Kentuckians with this higher level of Blue Shield benefits.
- The diagnostic x-ray and laboratory rider on Blue Shield indemnity Schedules D, E and F was upgraded and now pays for services rendered on a UCR basis, up to the limit of the member's contract. The upgrading of these riders involved improvement in benefits for over 159,000 members.

Cost containment activities continue to be a key issue in the health care industry and is a major activity within the Plan. Blue Cross and Blue Shield of Kentucky is actively involved in a number of programs directed toward holding down the rising cost of care. During 1979, the Plan's comprehensive 17-point Cost Containment Program resulted in over $14 million savings to Blue Cross and Blue Shield members, and an additional $9 million to the general public. The Plan's cost containment activities are sometimes met with resistance in the health care arena; however, Blue Cross and Blue Shield of Kentucky is committed to cost containment as a major emphasis on behalf of our members.

For four straight years, utilization of facilities and services gradually declined. However, for the first six months of 1980, we have recorded some increases in utilization and for the year, expect utilization to be equal to, or slightly higher, than for 1979.

The split billing arrangements of hospital-based physicians are of particular concern to the Plan. Our experience shows that when physicians separate their billing arrangements from hospitals, the net result is an increase in both benefit and administrative costs without a corresponding improvement in the quality of care. Our staff worked with a special Ad Hoc Committee of the Kentucky Medical Association to address this issue. Procedures were finalized to begin processing claims for the split billing arrangements with radiologists using the UCR approach effective during the first quarter of 1980. This included the profiling of physicians and payment on a participating and non-participating basis. All but one hospital-based radiologist have been profiled and have signed participating physician agreements. Recently, other hospital-based physicians have notified us of their intention to separate their billing arrangements with hospitals. The Plan is resisting this movement. Further separation of arrangements will again **increase** the benefit and administrative costs charged to our members.

The Medical Necessity Project, which the Blue Cross and Blue Shield Associations initiated in 1977, in cooperation with the American Medical Association and appropriate physician specialty groups, was further expanded this year. This latest phase of the project is designed to:

1. Eliminate additional outmoded medical and surgical procedures, and
2. Eliminate routine batteries of tests performed upon admission to a hospital unless specifically ordered by a physician.

The Medical Necessity Project in Kentucky has been considered by the appropriate committees of the Kentucky Medical Association and the Kentucky Hospital Association. These new phases were implemented the first part of 1980.

Blue Cross and Blue Shield converted to the official American Medical Association Claim Form effective January 1, 1980. Workshops on the proper completion of the forms were held throughout Kentucky with over **1,402** physicians' assistants in attendance. The adoption of this form will provide physician offices with a more uniform method of claims filing. The forms provide physicians the opportunity to bill for multiple services per patient on the same claim form.

In April, 1980, Blue Cross and Blue Shield of Kentucky requested rate increases on groups of two to 49 employees, pay-direct (non-group) subscribers and Farm Bureau subscribers. The plan is required by state insurance law to submit rate increase requests for review and approval by the Department of Insurance and the Kentucky Insurance Regulatory Board. Increases are based on the cost of health care services, anticipated increases in utilization, and administrative expenses. Federal maternity mandates and age discrimination legislation were also contributing factors to this request.

At the request of the Attorney General's office, the Kentucky Insurance Regulatory Board called for a public hearing to review the Plan's request. The primary purpose of the hearing was to provide an in-depth review and justification of the increases on behalf of the public and to allow subscribers to comment.

In an official action on Friday, May 30, 1980, the Kentucky Insurance Regulatory Board reviewed the findings of the public hearing

and made a final determination on the filing. The Board recommended approval of the filing, subject to a reduction of three-fourths of 1% of the requested increase. This amounted to an overall decrease of less than 1% in the original rate filing.

The 1980 Kentucky General Assembly considered a number of proposals which, if passed, would have mandated health care coverage for numerous non-medical providers. Blue Cross and Blue Shield of Kentucky took a position in direct opposition to mandated benefits. The basis for this position was that the employer and employee should continue to have the right to determine their health care benefits within their own budget and needs.

Two laws which did pass were as optional benefit programs. These are home health care coverage and reimbursement for chiropractic services.

Home Health Care

Under this law insurers are required to offer an option for benefits to include one or more of the following:

a. Part-time or intermittent skilled nursing services provided by an advanced registered nurse practitioner, registered nurse, or licensed practical nurse;
b. Physical, respiratory, occupational or speech therapy;
c. Home health aide services;
d. Medical appliances and equipment, drugs and medication, and laboratory services, to the extent that such items and services would have been covered under the policy if the covered person had been in a hospital.

Chiropractic Reimbursement

Chiropractic services must be offered as an **option** under this new law. Currently, services of a chiropractor are specifically excluded in all Blue Cross and Blue Shield of Kentucky contracts. The Plan is in the process of developing an optional rider at an additional cost that will be available, if requested.

Blue Cross and Blue Shield of Kentucky has long been a strong supporter of the Kentucky Medical Association Peer Review Mechanism. It has always been our position to look to organized medicine for guidelines when it becomes necessary to review cases involving physicians' fees, as well as questions about the medical necessity of inpatient services. Recently, the Plan has had concerns about the timeliness and effectiveness of some of the reviews. Our concerns have been communicated to the Kentucky Medical Association in the interest of Blue Cross and Blue Shield members and the public.

One issue that continues to be raised by some physicians is that involving the assignment of benefits for services covered under the Usual, Customary and Reasonable Certificate of Membership. A great deal of discussion has occurred over the years at the annual KMA meetings. It has been and continues to be the position of the Board of Directors of Blue Cross and Blue Shield of Kentucky that benefits under the UCR Program are not assignable to the nonparticipating physician. Nonparticipating physicians have, over the years, expressed a desire to deal with their patients directly, rather than participate in the UCR Program. Additionally, participating physicians have expressed their concern about our accepting assignments from nonparticipating physicians, since they are not committed to the procedure. The UCR Program is strong in that 82% of all practicing physicians in Kentucky have signed participating agreements. The fact that less than one-half of 1% of claims are referred to Peer Review demonstrates that the operation of the UCR Program is successful.

The Plan has had a Utilization Review Program in operation for a number of years. One of the purposes of utilization review is to determine that claims submitted are for medically necessary services and that claims submitted by providers and our members are being submitted for legitimate services performed.

Although the vast majority of claims submitted involve medically necessary and valid services performed, we have identified several cases that involve questionable practices of medicine as well as claims for services that have not been rendered. Primarily, we have found that fraudulent claims are being submitted by some subscribers under their Major Medical Certificates of Membership. We have received excellent cooperation from the medical community in those instances where we have had to investigate claims submitted by our members. This activity will be ongoing at the Plan. We plan to intensify our efforts in this area in order to insure that reimbursement only be made for actual services rendered. Also, we plan to continue to refer questionable claims involving medically necessary services to the appropriate level of the peer review mechanism.

The Plan will continue working with the physicians and providers of Kentucky to provide the best medical and surgical coverage at the lowest possible cost.

Blue Cross and Blue Shield of Kentucky appreciates the cooperative spirit of this House of Delegates and the Kentucky Medical Association.

Donald W. Giffen, President

Lynn L. Ogden, M.D. was again recognized and submitted the following statement:

"The Report of the President of Kentucky Blue Cross and Blue Shield contains one paragraph at the top of the page 12.3 in the Reports Book which is felt has not been proven.

It is also felt that it is still the basic right of every physician, whether hospital-based or otherwise, to bill for his (or her) services as he (or she) so desires.

It is recognized that the report of the President of Kentucky Blue Cross and Blue Shield cannot be changed or amended by the KMA House of Delegates, but it is felt that the subject matter can be properly addressed through the existing committee system.

It is therefore recommended to the KMA House of Delegates that the report of the President of Kentucky Blue Cross and Blue Shield be **filed,** but the **subject matter** contained in paragraph one of Report 12, page 12.3, be referred to the Committee on Medical Insurance and Prepayment Plans for evaluation, study and definitive recommendations."

(Editorial Note: For clarification, the paragraph in question (top of p. 12.3) is reprinted as follows:)

"The split billing arrangements of hospital-based physicians are of particular concern to the Plan. Our experience shows that when physicians separate their billing arrangements from hospitals, the net result is an increase in both benefit and administrative costs without a corresponding improvement in the quality of care. Our staff worked with a special Ad Hoc Committee of the Kentucky Medical Association to address this issue. Procedures were finalized to begin processing claims for the split billing arrangements with radiologists using the UCR approach effective during the first quarter of 1980. This included the profiling of physicians and payment on a participating and non-participating basis. All but one hospital-based radiologist have been profiled and have signed participating physician agreements. Recently, other hospital-based physicians have notified us of their intention to separate their billing arrangements with hospitals. The Plan is resisting this movement. Further separation of arrangements will again **increase** the benefit and administrative costs charged to our members."

A motion was made, seconded, and carried that the question of filing Report No. 12 and referral of subject matter on page 12.3 be split.

A motion was then made, seconded, and carried that Report No. 12, the Report of the President of Kentucky Blue Cross and Blue Shield, be filed. A motion was further made, seconded, and carried that the subject matter contained in paragraph one of Report 12,

page 12.3, be referred to the Committee on Medical Insurance and Prepayment Plans for evaluation, study, and definitive recommendations.

Resolution E

Pennyrile Medical Society

Hospital and Physician Reimbursement by Third Party Carriers

WHEREAS, there is great diversity in reimbursement for similar services by physicians and hospitals in similar settings over the state, and

WHEREAS, the differences are arbitrary and subjective and payments to practitioners differ depending on which hospital an individual works in, and

WHEREAS, due to contractual arrangements some out-of-state contractors for services are reimbursed much higher than physicians of the Commonwealth for similar settings, now, therefore be it

RESOLVED, the House of Delegates of the Kentucky Medical Association instructs the Committee on Insurance to look into these inequities which might require one or two meetings, one or more of which should be a forum open to the membership, and report back to the Kentucky Medical Association House of Delegates at the Annual Meeting 1981, their findings and recommendations for correction.

Fiscal Note: It is anticipated that these meetings and related costs will require some expenditure of funds.

Recommendations, Reference Committee No. 4

The Reference Committee has reviewed Resolution E—Hospital and Physician Reimbursement by Third Party Carriers, introduced by the Pennyrile Medical Society, and, based upon extensive testimony relating to apparent payment inequities by third party carriers, recommends referral of this resolution to the KMA Board of Trustees for the gathering of factual information and consideration by the Committee on Medical Insurance and Prepayment Plans.

Resolution J

Pennyrile Medical Society

Withdrawal from KPRO

WHEREAS, the Kentucky Peer Review Organization (KPRO) was approved by the Kentucky Medical Association House of Delegates as a vehicle to improve the quality of medical care, and

WHEREAS, KPRO has primarily become a mechanism for cost-containment and for physician and hospital control, without regard to quality care, and at an enormous expense which is being passed on to the patient, now, therefore be it

RESOLVED, that the members of the Kentucky Medical Association, its House of Delegates and Board of Trustees withdraw from KPRO, and, be it further

RESOLVED, that Kentucky Medical Association members are encouraged to not support, assist or participate in KPRO functions.

Recommendations, Reference Committee No. 4

The Reference Committee feels concern that PSRO needs attention but recommends referrel of Resolution J—Withdrawal from KPRO, introduced by the Pennyrile Medical Society, to the KMA Board of Trustees for consideration by the recently appointed KMA Ad Hoc Coordinating Committee on Peer Review with the understanding that this Committee was appointed to evaluate issues of this sort with reference to the operation of KMA's peer review system and to suggest changes and modifications if appropriate. One of our members did not agree with the majority and has filed the appended minority report.

Minority Report of Reference Committee No. 4

Resolution J—Withdrawal from KPRO (Pennyrile Medical Society)

The minority report, filed by Nelson B. Rue, M.D., of Bowling Green, recommends the adoption by the House of Delegates at this time, rather than referral, of Resolution J—Withdrawal from KPRO, introduced by the Pennyrile Medical Society.

Mr. Speaker, the minority recommends adoption of the minority report.

(The motion was seconded from the floor of the House, but on a call for a vote, did not pass.)

Resolution N

Jefferson County Medical Society

Procedures for Claims and Utilization Review Committee

WHEREAS, the Kentucky Medical Association has accomplished its "peer review" through a Claims and Utilization Review Committee with the same procedures and guidelines for more than 10 years, and

WHEREAS, these C.U.R.C. procedures and guidelines were written about the time when the PSRO law came into being and the KMA Foundation was started with the purpose of doing "peer review" to satisfy this law as well as all third party payors, and

WHEREAS, we understand that the KMA Board of Trustees has recently appointed a new "Overview" Committee with the assignment that they look into all forms of "peer review" affecting the physicians in this Commonwealth, regardless of whether the review is accomplished by Committees within KMA, County Societies, KPRO, Health Planning, or elsewhere, and

WHEREAS, we realize that the current procedures and guidelines of the C.U.R.C. offer a simple appeal mechanism, which states, "If either party to a review is dissatisfied with the recommendations of the local Committees, a written request for a reconsideration may be made to the C.U.R.C. and an Appellate review will be scheduled. Opinions rendered by the C.U.R.C. will be the final authority in the state peer review mechanism," therefore be it

RESOLVED, that the KMA House of Delegates instruct the new "Overview" Committee on peer review and the KMA Board of Trustees, that the primary jurisdiction of peer review in this state shall be a local or County Society peer review Committee when properly constituted representing a cross section of the profession and with adequate specialty consultation, and where no properly constituted peer review committee exists at the county level, the KMA Claims and Utilization Review Committee shall have primary jurisdiction, and be it further

RESOLVED, that no appeal request be granted by the C.U.R.C. unless there is new information on the case or improper procedure was followed at the local level, and be it further

RESOLVED, that the House of Delegates and the Board of Trustees also instruct the "Overview" Committee to establish firm policy and guidelines with all "third parties" so that physicians will be contacted and the case properly prepared prior to the date of the local peer review committee meeting, and be it further

RESOLVED, that this House of Delegates express its support for quality "peer review" of the medical profession by other members of the medical profession at the local level in behalf of quality patient care at the most reasonable cost.

Recommendations, Reference Committee No. 4

The Reference Committee supports the sense of Resolution N—Procedures for Claims and Utilization Review Committee, introduced by the Jefferson County Medical Society, but feels that more complete study for purposes of obtaining additional factual information as to its consequences would be of benefit to the membership of the Association and therefore recommends referral to the KMA Board of Trustees for consideration by its Ad Hoc Coordinating Committee on Peer Review.

Reference Committee No. 4 recommends adoption of the Report of Reference Committee No. 4 as a whole as amended.

Mr. Speaker, the Committee would like to express its thanks and appreciation to Mrs. Jean Wayne for her expert secretarial assistance to the Committee.

Additionally, Mr. Speaker, I would like to express my sincere thanks and appreciation to the members of this Committee in the preparation of this Report.

REFERENCE COMMITTEE NO. 4

Peter P. Bosomworth, M.D., Lexington, Chairman
Walter L. Cawood, M.D., Ashland
William B. Hamilton, M.D., Shepherdsville
C. Ray Potts, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green

REFERENCE COMMITTEE NO. 5

Fred A. Stine, M.D., Shelbyville
Chairman

Reference Committee No. 5 considered the following reports and Resolutions:

18. Report of the Committee on Maternal and Child Health
26. Report of the Committee on Medicare and Other Governmental Medical Programs
27. Report of the Committee on HSAs
28. Report of the Technical Advisory Committee on Physician Services (Title XIX)
30. Report of the Committee on Community and Rural Health
31. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports
40. Report of the Advisory Committee to the Department for Human Resources

Resolution B—Utilization Review Regulations (DHHS)-(Pennyrile Medical Society)

Resolution F—The Medicare (Title XVIII, Part B) Carrier for Kentucky (Pennyrile Medical Society)

Resolution G—County Boards of Health and Primary Care (Pennyrile Medical Society)

Resolution M—Regional Poison Control Centers (Campbell-Kenton County Medical Society)

Resolution P—Reimbursement Levels by the Medicaid Program (Pulaski County Medical Society)

Resolution R—Kentucky Medical Assistance Program (Board of Trustees)

Resolution S—Legal Action Regarding Reimbursement (Madison County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 5 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

18. Report of the Committee on Maternal and Child Health—Filed
26. Report of the Committee on Medicare and Other Governmental Medical Programs—Filed
27. Report of the Committee on HSAs—Filed
28. Report of the Technical Advisory Committee on Physician Services (Title XIX)—Filed
30. Report of the Committee on Community and Rural Health—Adopt
31. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports—Filed
40. Report of the Advisory Committee to the Department for Human Resources—Filed

Resolution M—Regional Poison Control Centers (Campbell-Kenton County Medical Society)—Adopt

Resolution P—Reimbursement Levels by the Medicaid Program (Pulaski County Medical Society)—Adopt

Report of the Committee on Maternal and Child Health

The Committee on Maternal and Child Health continued its discussion and planning for future on-site visits to assist hospital administration and medical staffs in achieving their stated goals to meet levels of care as designated by the various Federal agencies. These on-site visits are made only to assist, and the reports are kept confidential. Any release of the report is at the discretion of the hospital.

Previous on-site visitation reports have been mailed, and several hospitals have indicated an interest in having teams re-inspect their facilities. During the coming year, the Committee expects to reassess the evaluation procedures and forms and provide a workshop for site teams and assign on-site visit teams to the various hospitals who have requested an evaluation.

The Committee continues to monitor Federal and State programs, particularly HSA activities and proposed DHR projects. The Committee again reaffirmed its opposition to HSA setting arbitrary numbers of deliveries for qualifications regarding levels of care. The Committee also expressed its concern to DHR officials regarding medical programs implemented by DHR without prior consultation with organized medicine. The Committee has gone on record as being opposed to retroactive endorsement of DHR programs in operation prior to requests for KMA endorsements. However, we have been pleased with the cooperation and participation of DHR in the past year in prior planning and implementation of projects of medical and health interest.

Finally, the Committee endorsed and recommended AMA Resolution 22 as passed by the AMA House of Delegates in July, 1979, dealing with out-of-hospital birth risks. The resolution reads as follows:

Labor and delivery, while a physiologic process, clearly presents potential hazards to both mother and fetus before and after birth. These hazards require standards of safety which are provided in the hospital setting and cannot be matched in the home situation.

We recognize, however, the legitimacy of the concern of many that the events surrounding birth be an emotionally satisfying experience of the family while continuing to provide the mother and her infant with accepted standards of safety available only in hospitals which conform to standards as outlined by the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics.

On behalf of the Committee, I wish to express our sincere appreciation to the Board of Trustees and the House of Delegates for their continuing support. The Committee urges members of this Association to refer any questions or problems they may have that would

fall within the purview of this Committee's charge. As Chairman, I wish to acknowledge the outstanding service each Committee member renders and their excellent contribution to the Association and to medicine in general.

Van R. Jenkins, M.D., Chairman

Report of the Committee on Medicare and Other Governmental Medical Programs

Last year the Committee made three recommendations regarding Medicare reimbursement, which were adopted by the House of Delegates. In follow-up action, the recommendations were sent to the Federal Medicare office in the Regional Office of the Department of Health, Education and Welfare (now Health and Human Services); the intermediary, the Metropolitan Life Insurance Company in Lexington; as well as copies being sent to Kentucky's Congressional delegation.

The responses from each were reviewed by the Committee, as well as by the Board of Trustees.

The responses of most importance were from the HEW Regional Office. The response to the first position, that all Kentucky's physicians should be paid the same percentage of the actual fee charged on the UCR concept, upgraded annually, was that Medicare payments cannot be changed from the present system without a national legislative change.

The second recommendation was to urge HEW to base the prevailing charge calculation on fees submitted by all physicians. The similar response to this recommendation was that the current payment system cannot be changed without legislative revision.

The third recommendation was that KMA should review any such changes and determine their effect one year after initiation. In the face of the responses to the previous two recommendations, further consideration of this point seemed moot, although HEW did indicate that should such a change occur, they would gladly share any information produced.

From the replies, no further actions seemed indicated. In addition, considerations surrounding implementation of Kentucky Senate Bill 53 superseded these concerns.

S.B. 53 called for equalization of Medicaid payments. It is possible that implementation of this statute will have an effect on Medicare reimbursement, although any such application really cannot be predicted at this time. In any event, the possibility does exist of a direct relationship between Medicaid and Medicare reimbursements in the future because reimbursement formulas for both programs apparently are influenced by the Department of Health and Human Services.

Paul J. Parks, M.D., Chairman

Report of the Committee on HSAs

The Committee met this year with the chief executive officer of the Health Systems Agency West and the President of the Eastern Kentucky Health Systems Agency. The purpose of the meeting was to aid communications mutually between KMA and the HSAs.

At the time of the meeting, HSA West was involved in developing plans on surgical services, a hospice plan, burn services, health manpower and in-patient psychiatric services.

The Eastern HSA had no plans in process, but was anticipating beginning work on a health manpower study and related areas.

Since the Committee's meeting, the Statewide Health Coordinating Council has been formed. Under the most recent health planning law, this group, which is appointed by the Governor and 60% of whose members come from the HSAs in the state, has as a primary responsibility to review and meld the subplans of the HSAs into an overall State Health Plan, for purposes of continuity. Some gray areas exist, yet, with regard to other responsibilities the SHCC will have. These include influence on the Certificate of Need process, influence on the relationship of Certificate of Need to health planning objectives, and input on use of Federal funds.

A new chief executive has been appointed for HSA West, who is Stuart E. Mount. In the East Mr. Tony Goetz, who has served as the chief executive since that Agency was formed, has resigned and a new director has not yet been appointed.

Also since the meeting, we have witnessed the enactment of a new Certificate of Need law, which was necessitated by changes in Federal statutes regarding CON. This, together with national concentration on cost containment efforts, generally, has filtered down and influenced health planning activities. This is a trend we predict will grow stronger.

With these comments in mind, the Committee remains concerned, as do many physicians, with the activities of some of the health planning agencies in the state. Rather than being sources of what some see as adversity, ideally, all health planning components should seek a role as advocates of Kentucky to the Federal government. With ever increasing government pressure, this seems to be a necessity.

Cost containment trends further disrupt what may be the intent of the law by tending to prohibit true health planning and forcing increasing control through the guise of planning. The Committee hopes that everyone involved in the health planning process can be aware of this observation and try and work for advocacy of the people, rather than as vehicles for Federal control.

Harold L. Bushey, M.D., Chairman

Report of the Technical Advisory Committee on Physician Services (Title XIX)

The Technical Advisory Committee (TAC), which is an advisory body required by statute, reports to the Medical Assistance Advisory Council. The Council itself is made up of representatives of the provider groups who render services reimbursed by the Program.

Although the primary purpose of the Committee is advisory in nature, it has been most effective this year in solving individual physician problems. Obviously, the Committee can and does have little effect on the level of reimbursement made, for example, but it has been of assistance in such areas as coding problems, billing processes and various medical procedures, helping to clarify administrative guidelines, and so forth.

The Committee members substantially participate in the Program and, collectively, bring to the group broad experience and knowledge of its operations.

The Committee was concerned with three major questions this year relating to physicians' signatures on prescriptions; cost containment within the Medicaid Program; and S.B. 53, passed by the Legislature this year.

The Pharmacy Technical Advisory Committee contacted our group about problems pharmacists encountered in securing signatures on prescriptions that were phoned in. This necessitated follow up on the pharmacist's part, which was sometimes difficult, particularly when a large number of such prescriptions were received. The KMA TAC was concerned from a review standpoint that if the physician's signature did not appear on refill prescriptions, particularly, audit procedures might imply an impropriety on the part of the physician and the pharmacist.

After two meetings, the latter one of which included representatives of the Medical Assistance Program, it was agreed to recommend that a trial project be put into effect, whereby refill pre-

scriptions that were called in could be initialed by the pharmacist, rather than his having to obtain the physician's original signature within a time period allotted. If audit occurred, the physician would have to affirm that this was his patient and his order, and it was felt that this would relieve some of the burden on pharmacists and insure continuity of medical care to patients, in the best interest of everyone's convenience.

Because of reduced allocations and the possibility of indebted spending over the next biennium by the Medicaid Program, it has been directed by the State Legislature to seek cost containment and cost cutting areas in its operations. A committee was appointed from the members of the Advisory Council to consider containment efforts applied to all provider groups, and the report was submitted to the Secretary of the Department for Human Resources.

As relates to physician services, the committee felt that physicians might be able to contribute by concentrating on more office treatments and intentional efforts to avoid hospitalization of patients, when necessary. Other suggestions include education of patients on the proper use of the Medicaid Program, attempts to develop alternatives to hospitalization, and the encouragement of physicians to identify patients who were abusing the Program. As of this writing, final cost containment measures have not been taken, but the Committee will monitor the situation closely.

S.B. 53, which was passed by the State Legislature, called for equalization of Medicaid payments to all physicians, regardless of location of residence or practice. The Committee has some concern about how this bill might be implemented, fearing that the possibilities existed that payments would be reduced from present reimbursement levels or that a set fee schedule might be developed. It was learned that, although the bill would be implemented by the Department for Human Resources, the actual method of reimbursement would be ultimately determined by the Department of Health and Human Services of the Federal government. The Committee's concerns were made known to the Department and these were shared by the Secretary. A final determination has not yet been made by HHS, but the Committee, along with the Board of Trustees, obviously will follow this situation very closely, also.

Appreciation is noted for the dedication and efforts of the Committee members in what is, seemingly, a thankless endeavor.

Harold L. Bushey, M.D., Chairman

Report of the Committee on Community and Rural Health

The Community and Rural Health Committee considered Resolution N, passed by the 1979 House of Delegates. The resolution supported Pharmacy Alert Systems throughout Kentucky and urged all component county societies to consider adopting plans. The Committee met with representatives of the Jefferson County Pharmacy Society and the Kentucky Pharmaceutical Association to seek methods of implementing a statewide system. Both the KPhA and this Committee recognized several problems, including cost, 24-hour staffing and, to some extent, legal implications.

The Kentucky Pharmaceutical Association, in a letter to the Committee on Community and Rural Health, declined to participate in a statewide system at this time, but strongly supported a program of promoting individual county alert systems coordinated by the pharmacy and medical communities. The Committee was very impressed by the Jefferson and Bluegrass Pharm-Alert Programs for their innovativeness in establishing this service for their communities. The Committee stands ready to assist and provide information to those areas interested in adopting their own programs.

The Committee recommends that each county or multi-county medical society and their pharmacy counterparts formulate and organize a Pharm-Alert System utilizing the models of Jefferson and the Bluegrass systems or by initiating their own particular system to meet their individual needs.

The Committee continues to maintain interest in immunization levels of school children. By and large, most counties are doing extremely well. However, the Committee is concerned with several counties and their low immunization levels. We shall continue monitoring and studying this important facet of public health and report to the Board of Trustees our concerns when appropriate.

A continuing and perplexing problem confronting physicians is the participation of physicians on local boards of health. The KMA Board of Trustees and the House of Delegates have addressed this problem over the past several years and have made some inroad in encouraging active physician participation. We are concerned with trends in boards of health functions from being disease detection and prevention orientation organizations to becoming full health care delivery systems. During the 1980 General Assembly, several county health departments were extremely active in seeking additional funding and promoting health department's ability to deliver additional medical care normally construed to be the responsibility of the private sector.

The Committee suggests to each local society that physicians recommended for appointment to boards of health be contacted and interviewed prior to their official nomination. Major criteria for appointment should be their willingness to serve and their commitment to attendance and participation in all matters relating to boards of health. Further, monthly reports concerning matters of interest to physicians should be made by a designated physician to the local president or to the medical society at its scheduled meetings. Problems or trends that could have impact upon the entire State should be reported to the Trustee of the district for presentation to and action by the KMA Board of Trustees.

The Committee on Community and Rural Health, recognizing that the average age of our population is rising, will begin to focus upon the need for providing facilities and services for the aging. We are in the process of meeting with the Department for Human Resources, HSA's and other interested groups to study methods that will enhance and strengthen our present system. We believe it encumbent upon organized medicine to provide the leadership in this area and seek new approaches, if necessary, in caring for the aged.

As Chairman, I wish to express my sincere appreciation for the work of the Committee members during the year and for the excellent support from the Board of Trustees.

Don R. Stephens, M.D., Chairman

RECOMMENDATIONS

1. The Committee recommends that each county or multi-county medical society and their pharmacy counterparts formulate and organize a Pharm-Alert System utilizing the models of Jefferson and the Bluegrass systems or by initiating their own particular system to meet their individual needs.
2. The Committee suggests to each local society that physicians recommended for appointment to boards of health be contacted and interviewed prior to their official nomination. Major criteria for appointment should be their willingness to serve and their commitment to attendance and participation in all matters relating to boards of health. Further, monthly reports concerning matters of interest to physicians should be made by a designated physician to the local president or to the medical society at its scheduled meetings. Problems or trends that could have impact upon the entire State should be reported to the Trustee of the district for presentation to and action by the KMA Board of Trustees.

Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports

The Committee is pleased to report that for the ninth consecutive year it has presented the Medical Aspects of Sports Symposium. The program was again very well received and attended by physicians, trainers and coaches, from not only Kentucky, but many of the surrounding states.

The Committee is especially thankful to the University of Kentucky's Department of Continuing Medical Education for its assistance and sponsorship, and conveys special thanks to Ms. Joy Green for her hard work and diligence in implementing this program.

The Committee is continuing its program of educating coaches and officials about the problems of sports injuries and how they should be handled on the playing field. Each summer, members of the Committee meet with the coaches and officials across the state to enlighten them to the dangers that can occur by overworking an athlete and letting him compete before an adequate preconditioning program has been completed. The Committee has found this program to be very beneficial in educating coaches and officials of the medical problems that could arise. It also emphasizes the commitment of the Association to provide the best possible medical care to the state's athletes.

During the year it became apparent to the Committee that trampolines are still being utilized in many of the secondary school systems across the state. The Committee was disheartened by this fact. It was reported to them that several high school students had been seriously injured on trampolines this past year. They were also concerned about the lack of adequate medical services at sporting events. The main emphasis centered on the lack of adequate transportation available to move an injured athlete to a hospital if the need should occur. These concerns precipitated a letter to all high school principals in the state. I am happy to report that we have received numerous replies from across the state indicating that the trampolines are now being discontinued as part of the physical education curriculum, and that the school systems are open to any suggestions on how they might improve their medical service support for sporting activities.

The Committee calls on the membership to assist it in helping the state's school systems secure the necessary medical services for sporting activities. Approximately 100 physicians in the state have volunteered their time and energy to teams across the state. This is commendable, however, there are still numerous schools that lack the adequate coverage. If we do not provide the necessary coverage, then insufficiently trained non-physician personnel will take the responsibility. The schools are grateful for any services they can obtain, and feel any service provided is better than none at all. It is up to us as professionals to meet the needs of these communities. If any member is interested in assisting a team in his area, he should contact the local school board or the Kentucky Medical Association Headquarters Office. We already have numerous schools requesting our assistance, and with your help we can fill this void.

On behalf of the Committee, I would like to thank the Association for its continued support of the Medical Aspects of Sports Symposium and I would personally like to thank the members of the Committee and the staff for their work and assistance over the past year.

R. Quinn Bailey, M.D., Chairman

Report of the Advisory Committee to Department for Human Resources

The Advisory Committee to the Department for Human Resources met with the new Secretary for the Department, W. Grady Stumbo, M.D., on three occasions, in addition to having the Executive Committee meet with Doctor Stumbo, as well as the Board of Trustees.

The Advisory Committee's initial concerns were Resolutions D and G passed by the House of Delegates in 1979. Resolution D related to functions of boards of health and indicated dissatisfactions with the trend of providing more and more direct medical services through local boards.

Doctor Stumbo indicated his concern with this trend, and advised of his intent to try to modify the role of boards of health to meet public health needs for which they might be uniquely organized. At the present time, the functions of local boards apparently vary greatly from county to county, and a continuity of function is lacking. Obviously, modifications, or rather identification, of specific roles is a long-term project.

Resolution G expressed dissatisfaction with screening programs operated through boards of health by the Department for Human Resources for non-Medicaid eligible patients. The Committee learned that this program was not funded for the next biennium, so this problem is apparently reconciled.

Other meetings with the Secretary concerned implementation of S.B. 53, which called for "equalization" not result in reimbursement of charges at lower levels than present or, worse, the establishment of a fee schedule. These conversations were limited, as they were addressed more fully by the Executive Committee and the Board of Trustees in subsequent sessions.

The Committee would like to advise the membership of the Secretary's accessibility and candor in its meetings, and feels that this is a positive approach in dealing with mutual concerns.

Robert S. Howell, M.D., Chairman

Resolution M

Campbell-Kenton Medical Society

Regional Poison Control Centers

WHEREAS, Regional Poison Control Centers in Kentucky have provided valuable service to the citizens and medical personnel of the Commonwealth for 22 years at no cost to the citizenry or the State government, and

WHEREAS, the local availability of information and knowledge is advantageous to both patient and treating physician, and

WHEREAS, the Emergency Medical Services Branch of the Kentucky Department for Human Resources has proposed establishment of a single state-wide Poison Control Center at a cost of approximately $300,000, and

WHEREAS, this proposal to substitute centralization for appropriate local and regional service was made without consultation by the State with the existing Regional Poison Control Centers which are part of a National Network, therefore be it

RESOLVED, that the Kentucky Medical Association favors strengthening the existing Regional Poison Control Centers where needed, and be it further

RESOLVED, that the Kentucky Medical Association opposes any plan which would replace existing, highly useful and cost effective Regional Centers with a single state-wide Poison Control Center.

Resolution P

Pulaski County Medical Society

Reimbursement Levels by the Medicaid Program

WHEREAS, Senate Bill 53 in the 1980 Legislature required the maximum amounts payable by the Kentucky Medical Assistance Program for a physician's services **not** to vary with the physician's geographic location, and

WHEREAS, the current carrier for Medicare Part B (Metropolitan), whose administrative procedures have effect on the Kentucky Medical Assistance Program, has three actuarial districts currently, and

WHEREAS, no decision has been made as to which of these fee schedules will be paid to all Kentucky physicians participating in the Medicaid Program, now therefore be it

RESOLVED, that if the decision is made at a later date to apply Medicare's lowest maximum reimbursement for each physician's service under Medicaid, a special session of the House of Delegates be called to deal with this problem.

Resolution B

Pennyrile Medical Society

Utilization Review Regulations (DHHS)

WHEREAS, five years ago the American Medical Association won a law suit and blocked the government's utilization review (UR) regulations covering Medicare and Medicaid patients, and

WHEREAS, currently new UR regulations by DHHS are proposed, which if implemented would require preprocedure utilization review for every category of care that fits within the definition of "major diagnostic or therapeutic procedure." This provision, together with a provision for preadmission review, would create within each institution an agency with the authority to substitute its opinion for that of the patient and his or her physician, and

WHEREAS, it should be further noted that under the proposed regulations as written it would not be possible for physician members of the hospital medical staff who serve on the UR committee to care for Medicare and/or Medicaid patients, and

WHEREAS, The House of Delegates feels that as presented at this time the proposed UR regulations of the DHHS are unnecessary, could be very costly to the patient, the staff and the hospital and that there is no proof that patient care would be improved—in fact, it may be impeded. Furthermore, the proposed regulations are especially discriminatory to many physicians on smaller hospital staffs, now, therefore, be it

RESOLVED, the Kentucky Medical Association House of Delegates is opposed to such regulations and will support the American Medical Association in its effort to see that these regulations are either revised or withdrawn.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 considered Resolution B on Utilization Review Regulations, (DHHS), introduced by the Pennyrile Medical Society, and recommends an amendment to the final "Resolved." The original "Resolved" read as follows:

> "RESOLVED, the Kentucky Medical Association House of Delegates is opposed to such regulations and will support the American Medical Association in its effort to see that these regulations are either revised or withdrawn."

The revised wording would read:

> "RESOLVED, the Kentucky Medical Association House of Delegates is opposed to the pre-procedure utilization review put forth by DHHS and will support the American Medical Association in its effort to see that these regulations are either revised or withdrawn."

The Committee recommends adoption of this Resolution as amended.

Resolution F

Pennyrile Medical Society

The Medicare (Title XVIII, Part B) Carrier for Kentucky

RESOLVED, the Kentucky Medical Association House of Delegates requests the United States Department of Health and Human Services (DHHS) to replace the current Medicare (Part B) carrier for the Commonwealth of Kentucky, and, be it further

RESOLVED, the Kentucky Medical Association Board of Trustees appropriately convey this message to the United States Department of Health and Human Services, our United States Congressional Delegation, Secretary Stumbo of the Kentucky Department for Human Resources and anyone else necessary to accomplish this as soon as possible.

Recommendations, Reference Committee No. 5

The Committee next considered Resolution F, on the Medicare (Title XVIII, Part B) carrier for Kentucky, introduced by the Pennyrile Medical Society. The Committee recommends that this Resolution be rejected; however, the complaints raised by the Resolution should be considered by the Insurance Committee and a liaison between the Committee and the Metropolitan Insurance Company should be established. If further complaints are heard, the problem should be brought back to the House of Delegates for further action.

Resolution G

Pennyrile Medical Society

County Boards of Health and Primary Care

WHEREAS, in recent years County Boards of Health have expanded their roles and have become increasingly involved in the private practice of medicine, and

WHEREAS, this change in philosophy has resulted in a loss of the primary goals that traditionally have been established, and

WHEREAS, the budgetary limitations of staff, funds, facilities and resources are being diverted away from public health measures into competitive health care facilities, now, therefore be it

RESOLVED, the Kentucky Medical Association House of Delegates strongly urges the Kentucky Department for Human Resources to limit health department endeavors to public health measures and not to become involved in the delivery of primary medical care, and, be it further

RESOLVED, the Kentucky Medical Association House of Delegates reaffirm its support of local Boards of Health to determine the needs of local citizens in public health measures, and, be it further

RESOLVED, the Kentucky Medical Association House of Delegates strongly urges its physician members who serve on local Boards of Health to actively participate on those boards.

Recommendations, Reference Committee No. 5

The Committee next considered Resolution G on County Boards of Health and Primary Care, introduced by the Pennyrile Medical Society, and suggests an additional "Resolved" be adopted, to read as follows:

> "RESOLVED, that KMA appoint a committee of family physicians, internists, pediatricians and obstetricians to meet with the Secretary of the Department for Human Resources, to work out basic problems and to curtail the further increase

in the delivery of primary care services by boards of health throughout the state." The Committee recommends adoption of Resolution G as amended.

Resolution R
Board of Trustees
Kentucky Medical Assistance Program

WHEREAS, this House of Delegates has considered and taken positions on the operation of the Kentucky Medical Assistance Program on several occasions, dating back as far as 1968, and

WHEREAS, these positions have reflected various inequities in the Program, observed by physicians, that have had negative impact on patient care, and

WHEREAS, these inequities have had a further effect by discouraging participation in the Program by physicians and other professional groups, and

WHEREAS, continued attempts by physicians and others to work with the Medicaid Program to help rectify such shortcomings have not had any significant positive results now, therefore be it

RESOLVED, that previous action by this House of Delegates regarding Title XIX be rescinded and that the 1980 House of Delegates take the position that KMA as an Association can no longer encourage physician participation in the Kentucky Medical Assistance Program.

Recommendations, Reference Committee No. 5

The Committee reviewed Resolution R on the Kentucky Medical Assistance Program, introduced by the Board of Trustees, and recommends that Resolution R be referred to the Board of Trustees and that action on this Resolution be postponed definitely, until such time as the Board can address the following items:

1. Survey physicians throughout the Commonwealth to determine which doctors do not participate in the Program and get their reasons for not doing so.

2. Examine the legal implications if KMA does not appoint members to the Technical Advisory Committee on Physician Services to the Kentucky Medical Assistance Program.

Thomas L. Heavern, Jr., M.D., Delegate from Campbell-Kenton County Medical Society, was recognized, and made a motion that the Reference Committee action on Resolution R be rejected and in its place the following Resolution be adopted: (The motion was seconded from the floor).

RESOLVED, that the KMA Board of Trustees survey physicians throughout the Commonwealth to study participation in the Medical Assistance Program and to assess the reasons for non participation, and be it further

RESOLVED, that the KMA examine the legal effects if KMA should withdraw from the process for appointment of physician members to the Technical Advisory Committee on Physician Services to the Kentucky Medical Assistance Program, and be it further

RESOLVED, that the KMA Board of Trustees review the operations of other state Medicaid Programs to see what features from these programs might be added advantageously to the Kentucky Program, and be it further

RESOLVED, that the KMA Board investigate mechanisms to improve the clerical operation of the Medicaid Program, and be it further

RESOLVED, that the KMA Board investigate the reasons for the current "freeze" on physician payments under the Program and take steps to see that the anticipated yearly adjustment of payments is restored and to assure the long promised progress of physician payments on a UCR basis for physician services necessary to the health of Kentucky's indigent citizens, and be it further

RESOLVED, that the KMA Board study with the Secretary of the Department for Human Resources methods of improving communication between physicians and the Medicaid program and the Department for Human Resources to allow increased and effective input by physicians, and be it further

RESOLVED, that this House of Delegates meet in special adjourned session on April 16, 1981, or sooner at the discretion of the Board of Trustees to receive the Board report on these matters, and to act on Resolution R and other related Medicaid matters at that time, and be it further

RESOLVED, that Resolution R be postponed definitely to the adjourned session.

In the course of discussion, W. Grady Stumbo, M.D., Secretary of the Department for Human Resources, was called on to address the issue. Doctor Stumbo briefly stated that as the highest appointed health official of the state, he would have influence on the problem.

Following further discussion, a vote was taken on Doctor Heavern's motion as stated above. The motion carried.

Resolution S
(Madison County Medical Society)
Legal Action Regarding Reimbursement

WHEREAS, the members of the Madison County Medical Society hold that a clear inequity exists on the part of third party payment agencies in that differential payment schedules are used for level-1, level-2, and level-3 providers, and

WHEREAS, such a policy results in situations whereby physicians of equal competence receive different payments for identical types of patient care endeavors, and

WHEREAS, level-1, level-2, and level-3 providers should be paid on the same fee schedules collectively, and

WHEREAS, payments to providers or groups of providers should not be based on their practice location or their arbitrarily set level, now therefore be it

RESOLVED, that in order to achieve rectification of this inequity, a class action suit should be brought by level-2 and level-3 providers collectively against the individual offending third party payment agencies.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 then considered Resolution S on Legal Action Regarding Reimbursement, introduced by Madison County Medical Society, and recommends that this Resolution be rejected.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 5 as a whole as amended.

I would sincerely like to thank the other members of the Committee: Keith E. Ellis, M.D., Benton; Charles Brohm, Louisville; Edwin Nighbert, M.D., Lexington; and R. D. Pitman, M.D., Williamsburg; for the long hours in listening and digesting testimonies. A special thanks to Ms. Sharon Heckel for her tremendous assistance.

REFERENCE COMMITTEE NO. 5

Fred A. Stine, M.D., Highland Heights, Chairman
Keith E. Ellis, M.D., Benton
Charles M. Brohm, M.D., Louisville
Edwin J. Nighbert, M.D., Lexington
R. D. Pitman, M.D., Williamsburg

REFERENCE COMMITTEE NO. 6

Edward N. Maxwell, M.D., Louisville Chairman

Reference Committee No. 6 considered the following reports and Resolution:

11. Report of the Rural Kentucky Medical Scholarship Fund
21. Report of the Physician-Attorney Liaison Committee
22. Report of the KMA-Kentucky Nurses Association Joint Practice Committee
38. Report of McDowell House Board of Managers
34. Report of Membership and Placement Services Committee
10. Report of the Judicial Council
37. Report of the Committee to Study the Constitution and Bylaws
20. Report of the Committee on Medical Insurance and Prepayment Plans, Section on Coterminous Board Membership, Pages 20.10 and 20.11

Resolution K—Associate Membership (KMA Board of Trustees)

ITEMS FOR CONSENT

Reference Committee No. 6 reviewed the following items and recommends they be filed as indicated by the consent of the House without discussion:

11. Report of the Rural Kentucky Medical Scholarship Fund—filed
21. Report of the Physician-Attorney Liaison Committee—filed
22. Report of the KMA-Kentucky Nurses Association Joint Practice Committee—filed
38. Report of McDowell House Board of Managers—filed

Report of the Rural Kentucky Medical Scholarship Fund

The Rural Kentucky Medical Scholarship Fund now entering its 34th year of existence has made loans in excess of 2.3 million dollars which accounts for 475 recipients. Of these figures, 105 are in residency training or medical school and 60% of the rest are still practicing in rural areas, with another 15% still practicing in Kentucky. Therefore, the Fund can boast a 75% retention rate for its success.

This year the financial crunch hit the Fund very hard and only enabled us to provide nine new loans. Over the past three years, the Fund has maintained 55 loans each year, for a total in excess of three-quarters of a million dollars. This depletion of our resources has resulted from the increasing demand for financial assistance, and the Fund's policy to loan to every needy student and utilize all available funds.

To alleviate our financial dilemma, the Fund has undertaken a solicitation program to obtain additional contributions from past recipients, members of the medical community and state and national foundations. We are grateful to the past recipients who have contributed and encourage any member of the Association or past recipient to contribute so the Fund may continue this most successful program.

The Fund is especially grateful to the Department for Human Resources and Doctor Grady Stumbo for his assistance in insuring that enough funds would be available this year so the Fund could make all of its renewals and still provide new scholarship loans. Also, thanks is to be conveyed to the KMA officers, Legislative Committee members, and staff for their work in securing this much needed funding.

Major changes are currently underway in the Fund's structural organization. The Fund is currently undergoing incorporation procedures which will enable us to have a more secure foundation and provide us the necessary legal protection for the Board, staff and recipients.

By next year the Fund will be fully incorporated and expanding its role by taking a more active stance on recruiting physicians for rural areas. Many new committees will be formed to develop programs and recommendations for the establishment of better working relationships with the universities and critical areas. Another program to stabilize the economic outlook of the Fund will also be undertaken.

This year it was with regret that the Fund's Chairman of nine years and member of the Board since its inception, G. L. Simpson, M.D., stepped aside as Chairman. However, he continues to serve on the Board. Through Doctor Simpson's leadership, the Fund has maintained a high record of success and has gained national recognition. Doctor Simpson's contributions to the Fund are numerous, and we look forward to his continued assistance and input.

The Fund's success has been based on the perseverance of its Board and its goal to alleviate the rural physician shortage. Our past history proves that this is a viable program that is beneficial not only to the practice, but to the medical profession as a whole. We are proud of our record, and I would like to personally thank the Board members for their dedication and the KMA for its continued assistance and support.

Henry S. Spalding, M.D., President

Report of the Physician-Attorney Liaison Committee

The Physician-Attorney Liaison Committee held one formal meeting during the Associational year with other inquiries and complaints being very competently handled by mail or telephone. The vast majority of complaints handled by this Committee center around depositions and usually occur as a result of personality conflicts or previous litigation.

The Kentucky Bar Association has been very responsive, and the attorney members of the Committee have been extremely cooperative and fair minded. Physician members are to be congratulated for their timeliness and professional approach to performing a much-needed service on behalf of all KMA members.

The original purpose of the Interprofessional Code, adopted by both professions in 1973, was to establish, maintain and perpetuate a greater degree of understanding and ethics between the respective medical and legal professions. As pointed out in the Preamble, however, it is not necessarily of a binding character, nor can it be so detailed as to cover every circumstance. The Committee has very carefully followed this Code and has resolved many misunderstandings, thus averting unnecessary serious legal conflicts.

The Committee appreciates the continued support of the KMA membership and the Board of Trustees. With your continued support, the Physician-Attorney Liaison Committee shall continue to function and maintain the fair exchange of communication between these two most respected professions.

Thomas M. Marshall, M.D., Co-Chairman

Report of the KMA-KNA Joint Practice Committee

The KMA-KNA Joint Practice Committee did not meet during the 1979-1980 Associational year. We have carefully monitored the activities of the Advisory Committee to the Kentucky Nursing Board, which is partially composed of physicians on the Medical Licensure Board. We have also participated in the study by the Jefferson County Medical Society and their subsequent recommendations in the areas of joint physician and nursing practices.

Due to the long delay in the implementation of nurse practice regulations, which is due to conflicting statutes and disagreements among the nursing and medical professions, the Committee has not met pending final negotiations, presentation and adoption of regula-

tions governing nurse practice. Once regulations have been adopted, we foresee a great deal of activity by our Committee.

While we are experiencing a flurry of activity in the area of mid-level practitioners, it is important that continuous scrutiny be observed both by the medical and nursing professions in observing medical protocol and defining limits of practice that are in the best interests of the public. Dialogue between our two professions should continue, and efforts should be made to strengthen ties between these two professions which remain the most respected and honored of the health professions.

Kenneth P. Crawford, M.D., Chairman

Report of the McDowell House Board of Managers

The McDowell House Board of Managers has met on four occasions at quarterly intervals at the McDowell House in Danville, Kentucky, during the past Associational year. Almost 100% of the members of this Board attend each meeting and are deeply interested in the preservation and public image of this heritage of the medical profession.

In the past year the Kentucky Heritage Commission allocated $30,000 for the preservation of the Ephraim McDowell House. A sum of $10,000 of this was to be spent to have architects prepare a thorough evaluation of the House, which would demonstrate all of the possibilities of necessities of care in the future. Over a period of months, this has been carried out by the architects in Danville, and a booklet has been prepared which summarizes the building plans, the renovations and care of the House through the years, and the indications for repairs at this time. This booklet has been approved by the Board of Managers and subsequently by the Kentucky Heritage Commission.

The remaining $20,000 will be spent inasfar as is possible in the replacement of the roof on the back "L" of the building and the removal of the plaster over the bricks in the back hallway because of the dampness and cracking of the plaster. Apparently this plaster was applied over the original brick many years ago.

From those funds that are available for annual upkeep of the House, the front part of the House will be repainted in the immediate future. The back porch is decaying, and repairs will be made. Certain other repair items will be carried out this fall. This will be over and above the $30,000 allocated for repairs by the Kentucky Heritage Commission.

The present hostess, Mrs. Nimmocks, has developed a number of interesting and unusual programs. These include the development of "Friends of the McDowell House" for annual contributions, which have been surprisingly good, the training of young ladies in becoming hostesses in the future and who will eventually be dressed in the habits of McDowell's day, and a number of other activities, including lectures, are being planned.

Laman A. Gray, Sr., M.D., Chairman

Report of the Membership and Placement Services Committee

The Membership and Placement Services Committee has a responsibility to recruit physicians for membership in the Kentucky Medical Association and to seek to assist in attracting physicians to practice in Kentucky.

As you might imagine these responsibilities require a significant amount of the Committee's time and, therefore, necessitates its meeting at least three to four times annually. The Committee currently has several programs underway to recruit physicians for membership. These programs will be reviewed annually to develop new techniques and ways to encourage new physicians to join and participate. Last year's report discussed the Committee's endeavors to recruit student members for the Association, and once they were recruited, to organize them into their own section within the KMA organizational structure.

When the student membership dues were done away with last year, a solicitation program was initiated that resulted in 364 students joining the Association. Plans in the future are to meet with the Freshman class each year and try to obtain 90% of the class as student members during the visit with them. The students have organized their governing committees at each school and are currently in the process of meeting to develop proposed guidelines for consideration by the Committee and, subsequently, the House. If these proposals are approved prior to the Annual Meeting, a special addendum to this report will be provided.

The Committee is also interested in attracting as many in-training and resident physicians as possible. Recent surveys conducted by the American Medical Association have concluded that membership recruiting activities are more successful when recruiting prospective candidates in the earliest part of their medical careers. Resident physicians in Kentucky have been surveyed twice. Although the survey results were far from adequate to make a determination of whether the Association should undertake the lead in organizing a Resident Physician Section, it did provide the Association an opportunity to solicit approximately fifty resident physician members. Programs underway will continue to be reviewed and new approaches will be followed, when indicated, in the development of membership recruitment and retention programs.

PLACEMENT

The First Annual Physician Recruitment Fair was held at the Ramada Inn in Louisville on October 20,1979. The program received extensive coverage in the local news media, with every local station providing coverage, and write-ups appearing on the front page of many local and state newspapers. There were 24 exhibits, which represented 35 communities that participated in the Fair, and 135 prospective candidates and their spouses visited the exhibit hall during the course of the Fair.

The Program featured a morning instructional session, which served to orient communities toward recruiting a physician for their area. An extensive manual on this topic was prepared and distributed at the meeting. The manual suggests step-by-step approaches to assist communities and recommends a Search Committee to locate prospective candidates.

The Kentucky Educational Television Network covered the Recruitment Fair from beginning to end, and was presented in a two-hour documentary on prime time television later in the fall.

The Committee was very pleased with the evaluations received on the Recruitment Fair, and with the publicity obtained from its presentation. The Board of Trustees felt these efforts were well worth repeating and have encouraged the Committee to schedule the Second Annual Physician Recruitment Fair for October 4, 1980. As a different approach to recruitment this year the University of Kentucky has agreed to host the Fair on campus. Since a large segment of potential candidates live right on campus, it is hoped that a larger crowd can be attracted.

It was found from last year that participation from Kentucky residents and students was less than what the Committee desired. The on-campus approach was felt, by the Dean of the medical schools, to be the most practical approach to increasing the number of prospective candidates.

The Program will again feature the same format as last year. Mr. J. Ed McConnell, Past-president of Blue Cross and Blue Shield, and a noted Kentucky humorist, will be the keynote speaker. The exhibit hall has been expanded to accommodate 41 exhibits and it is antici-

pated that 200-250 prospective candidates and 50 communities will participate in this program. Additional national advertising has been sought and invitation letters have been sent to all prospective candidates in the surrounding states. The Committee extends an invitation to any physician or community that wishes to exhibit to please do so. For those seeking a change in practice location, you are encouraged to set aside October 4, 1980 to attend the Fair.

As Chairman, I would like to take this opportunity to thank the members of the Committee who have diligently provided their assistance in the development and implementation of both programs in Membership and Placement. Their dedication to these programs is evident in growing membership, which has broken all previous levels, and in the productive recruitment programs. We appreciate the support of the Board and House, and hope to continue providing successful programs.

John M. Baird, M.D., Chairman

ADDENDUM

The Membership and Placement Services Committee has been working diligently with the two student members of the Committee and a selected group of student members from the University of Louisville and the University of Kentucky this past year to develop a program that will increase active student participation in the Association, while providing these future physicians with a forum for discussions of mutual problems and concerns and their relationship with organized medicine.

As stated in our final report last year, the Committee is very favorably impressed with the interest of the student members. We are encouraging them to continue their efforts to create a Constitution and Bylaws for the formation of a Medical Student Section (MSS) within the KMA organizational structure. The Committee requested that each university elect five representatives who would act as the organizing committee for the formation of an MSS. This group has already met and is currently working on the development of a Constitution and Bylaws.

The Committee anticipates by late fall the student organizing committee will be ready to submit a final draft of its Constitution and Bylaws for review by the Membership and Placement Services Committee. From these deliberations and other discussions, the Committee hopes to provide a recommendation for implementation of this program to the Board of Trustees and subsequently the House next year. Again we strongly endorse the students' activities and recommend that the House endorse the concept of a Medical Student Section (MSS) with the students being responsible for the development of a Constitution and Bylaws and submission of their recommendations to the KMA House of Delegates at its 1981 Annual Meeting. We feel that the efforts being put forth at this time will culminate in the creation of a new and viable section within the KMA that will provide better communications and coordination of activities between our future physicians and members of the Association.

RECOMMENDATION

1. That the House endorse the concept of a Medical Student Section (MSS) to include the development of a Constitution and Bylaws for submission to the KMA House of Delegates at its 1981 Annual Meeting.

Recommendations, Reference Committee No. 6

Reference Committee No. 6 reviewed the report of the Membership and Placement Services Committee and noted with pleasure the results of the student membership drive and the success of the first annual Physician Recruitment Fair. The Committee is encouraged to see that the second annual Physician Recruitment Fair is scheduled for October 4, 1980. The Reference Committee recommends adoption of the recommendation of the Committee which reads as follows:

> That the House endorse the concept of a Medical Student Section (MSS) to include the development of a Constitution and Bylaws for submission to the KMA House of Delegates at its 1981 Annual Meeting.

Report of the Judicial Council

The Council has met approximately every month and a half to consider complaints and questions about our profession. Increasingly, it seems that most of the issues the Council addresses are patient initiated. While grievance considerations are a function of the Council, there is some concern over what may be an unnecessarily high number of situations where appropriate communication between patients and physicians does not exist.

Including elementary grievance issues, the Council considered some 40 items this year that covered a wide range of questions. Rather than discuss each one here, only those which have broad application to all the membership appear.

On more than four separate occasions, complaints were made or received by the Council from physician peers. In one instance a physician was reviewing and making notes on records of hospitalized patients whom he was not treating. This situation was finally reconciled on a local level, although the Council continues to monitor it.

In keeping with the Medical Practice Act and the KMA Constitution and Bylaws, two memberships were terminated as a result of licensure actions. Membership termination is required whenever a physician is convicted of a felony or licensure renovation occurs.

One question was raised concerning the propriety of a physician including costs for specialized medical insurance in his charges to patients for clinical services. The Council issued an opinion that physician charges should only be made for those services they render together with associated medical costs.

The Council continues to receive questions concerning the propriety of physician withholding itemized statements until the patient remits payment in full, particularly with regard to reimbursement under the Medicare program. We would once again like to reiterate a long standing policy that, "the physician must report fully and adequately in his billing the nature of his services provided so that the patient may be properly reimbursed by the Medicare carrier." This an AMA policy as well as this Association's policy.

On two related issues the Council was asked to consider the propriety of financial transactions related to charges for services. In the first, which involved a physician imposing interest charges on past-due accounts, the Council cited the traditional AMA opinion which states, "It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note, or to charge a penalty on fees for professional services not paid within a prescribed period of time, or to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection."

In the second instance the Council was asked to give an opinion on physicians requesting that patients sign a 90-day, non-interest bearing note pending medical insurance reimbursement. The Council did not feel that this was an unethical practice as such, but was concerned with the apparent increasing commercialism of medical practice.

Some questions were posed about legal ownership of medical records and x-rays, and the Council reaffirmed that they are the property of the physician who compiled the records or the physician or hospital who made the x-rays. However, the Council urged that such records be forwarded to a different or new attending physician on proper request.

Questions were also received relating to pharmacies providing physicians with preprinted prescription forms containing the pharmacy's name. The Judicial Council of the AMA has ruled that it is unethical for a physician to use such prescription blanks and has suggested that the matter can be resolved by either having no pharmacy name appear or having the statement that the blanks are courtesy of the local Pharmaceutical Association or some comparable phrase.

At the last meeting of the House of Delegates proposed changes to the AMA Principles of Medical Ethics were considered. In follow up, an Ad Hoc Committee was appointed to help develop KMA's position on these proposed revisions. The Council considered the revisions but did not take any formal position. Individual members of the Council were encouraged to attend meetings of the Ad Hoc Committee to express individual ideas.

Also related to the Annual Meeting was a question referred to the Council relating to physicians serving on a governing board of a third party insurance carrier and the governing board of KMA simultaneously. The Council found nothing unethical as such or any conflict of interest with a physician serving on the governing board of KMA and simultaneously on the governing board of a third party insurance carrier.

A final referral from the House of Delegates was contained in Resolution J which called on KMA to investigate the ethics involved with a Medicare survey. These surveys have apparently been sent to a number of physicians and ask whether or not they perform laboratory services in their office, what outside laboratories they utilize and what the charges are from the outside labs. Associated with this is a question of whether physicians should withhold such information from the carrier and what the consequences may be if they do. After considering information received from the Medicare office, the Council has determined that a physician is not under any legal obligation to furnish such information to the carrier and that no question of ethics comes into play.

The Council appreciates the trust and confidence of the membership and the House of Delegates and hopes that it has served diligently and well on behalf of the profession. My sincere thanks to the Council members for their dedicated services, to KMA counsel, Mr. Carl Wedekind, and to the secretary, Mrs. Gwenn Fox.

E. C. Seeley, M.D., Chairman

Recommendations, Reference Committee No. 6

Reference Committee No. 6 considered the report of the Judicial Council and congratulates the Judicial Council for an interesting report. We recommend that this report be filed.

Report of the Committee to Study the Constitution and Bylaws

The KMA Committee to Study the Constitution and Bylaws met on May 8 to put proposed changes to the Constitution and Bylaws in the proper language for consideration by the House and to generally review the Constitution and Bylaws.

Last year, the KMA House of Delegates adopted the amended Report of the Ad Hoc Committee on Insurance Procedures and Primary Care Reimbursement. Part of that Report called on KMA to adopt a policy that members of the Executive Committee, Board of Trustees, or staff may not simultaneously be members of the Boards of third-party health insurance carriers. It was the feeling of the Board of Trustees that to properly implement the House action, the Bylaws should be changed. It is the feeling of the Constitution and Bylaws Committee that if such a change is made in the Bylaws, it should be done by adding a Section 10 to Chapter VI.

Several years ago, the Bylaws were changed to allow bordering county medical societies to join together to form multi-county societies. When multi-county societies were established, the original societies ceased to exist and were replaced by the multi-county society. On a couple of occasions, societies have felt it indicated to withdraw from the multi-county society and return to their single county component status.

The Committee considered suggesting changes in the Bylaws which, if approved, would restructure the procedure now being used for counties to retrieve their individual charters. After some discussion, it was felt that current procedure, as covered in Chapter XII, Sections 1 and 4, is appropriate and that no changes should be made in the Bylaws at this time.

Finally, the Committee has proposed amendments to appear in Chapter XIII of the Bylaws to help clarify the difference between meetings of the House of Delegates as opposed to a session of the House of Delegates. Following this Report, each proposal to amend the Bylaws being presented to the House is listed first, with an expanded discussion of the rationale for the change, the pertinent sections as presently worded and, lastly, the proposed change itself listed as recommendations numbered consecutively.

The Chairman would like to express his appreciation to the Committee members for their diligent attention and efforts.

Robert L. McClendon, M.D., Chairman

RECOMMENDATION NO. 1

(Proposed)

Chapter VI, Section 10

No member of the Executive Committee, Board of Trustees, or staff may simultaneously be a member of the Board of a third-party health insurance carrier.

During the course of this past Associational year, the author of the amendments to the Report of the Ad Hoc Committee on Insurance Procedures and Primary Care Reimbursement indicated that it was not his intention to prohibit KMA Board members or staff from simultaneously serving on third-party boards in an ex-officio capacity. It was his feeling that, in fact, such liaison was important and should be continued. The KMA Comittee on Medical Insurance and Prepayment Plans also discussed this subject and concluded that it would be desirable, whenever possible, for liaison to be maintained and thus recommended that some provision be made, in any prohibition against simultaneous membership, to allow members of the Executive Committee, Board or staff to serve on third-party boards in an ex-officio capacity. Your Constitution and Bylaws Committee feels that the following wording, if adopted by the House, would satisfy that suggestion.

RECOMMENDATION NO. 2

(Proposed)

Chapter VI, Section 10

No member of the Executive Committee, Board of Trustees, or staff may simultaneously be a member of the Board of a third-party health insurance carrier, except as an ex-officio member.

The final item of discussion was of a house-keeping nature and concerned the apparent discrepancy in the interpretation of the term, "regular session," as used in Article XIII of the Constitution and the word, "session," as used in Sections 1, 2 and 3 of Chapter XIII of the Bylaws. Because the true meaning of a session, as defined by Webster's dictionary, is a meeting or series of meetings, the Bylaws Committee feels that Chapter Sections 1, 2 and 3 of the Bylaws should be modified as follows.

(Present)

CHAPTER XIII. AMENDMENTS

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at that session, provided: (1) the amendment proposed is presented in writing to the Delegates 30 days prior to the (session), or, (2) the amendment is introduced in writing at a regular (session) of the House of Delegates and considered at the following session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final session of the House of Delegates, but not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual delegate at the final session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studied by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final (session) is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

RECOMMENDATION NO. 3

(Proposed)

Chapter XIII. Amendments

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at a **meeting of that** session, provided: (1) the amendment proposed is presented in writing to the Delegates 30 days prior to the **meeting,** or (2) the amendment is introduced in writing at a regular **meetlng** of the House of Delegates **durlng the sesslon** and considered at the following **meeting of the** session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final **meetlng of a** session of the House of Delegates, but, not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual Delegate at the final **meeting of a** session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studies by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final **meeting** is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

Recommendations, Reference Committee No. 6

Reference Committee No. 6 considered the report of the Committee to Study the Constitution and Bylaws. The Reference Committee recommends the adoption of Recommendation No. 3 relating to amendment of Chapter XIII Bylaws.

The Reference Committee recommends rejection of Recommendations No. 1 and 2 regarding proposed amendments to Chapter VI, Section X. In lieu of these recommendations the Committee recommends adoption of the following:

> "That the House of Delegates reaffirm its previous long-standing policy approving service by KMA members, elected officials, and staff on the boards of third-party health insurance carriers, and the contrary action of the House of Delegates adopted in 1979 be rescinded."

One member of the Reference Committee did not agree with the majority and has filed a Minority Report which is attached.

Minority Report Report Of The Committee To Study The Constitution And Bylaws

1. The Minority Report recommends rejection of Recommendation No. 1 of the report of the Committee to Study the Constitutions and Bylaws concerning Chapter VI, Section X.

2. It is also recommended that the recommendation of the Board of Trustees on the report of the Committee to Study the Constitution and Bylaws be rejected.

3. It is further recommended that Recommendation No. 2, Chapter VI, Section X of report of the Committee to Study the Constitution and Bylaws be amended and adopted as follows:

> No member of the Executive Committee or Board of Trustees may simultaneously be a member of the Board of a third party health insurance carrier, except as an ex-officio member.

Mr. Speaker, the minority recommends adoption of the minority report.

Respectfully submitted,
Willlam B. Monnig, M.D., Erlanger

William B. Monnig, M.D., Delegate from Campbell-Kenton County Medical Society, was recognized and made a motion that the Minority Report of Reference Committee No. 6 be adopted in lieu of the Majority Report. The motion was seconded from the floor, and on a hand vote, received 34 votes in favor, and 102 votes opposed to the motion.

A hand vote was then taken on adoption of the Majority Report. Voting in favor of the motion to adopt the Majority Report were 114 House members; and 20 were opposed.

Report of the Committee on Medical Insurance and Prepayment Plans Section on Coterminous Board Membership Only

Policy adopted by the House last year states:

> "To eliminate any possible implication of conflict of interest between the KMA or its elected representatives and third party health insurance carriers or their boards of directors by outside agents (whether from the private sector or the government sector), the KMA should establish as policy that no member of the Executive Committee, Board of Trustees or staff may simultaneously be a member of the Board of a third party health insurance carrier."

Doctor Monnig, who introduced this amendment from the House floor, and who is a member of our Committee, informed our Committee that no restriction was intended to apply to officers of KMA serving simultaneously as an ex-officio member of the Board of Directors of a health insurance company. Further, he feels it is very important for these people to continue to serve in an ex-officio capacity in order to represent medicine's interest. As a result, the Committee recommended to the KMA Board of Trustees that this policy not apply to KMA officers serving as non-voting ex-officio members of third party boards. This motion was carried with the understanding that any KMA Board member could hold a non-voting membership on a third party health insurance company board.

Although the Board agreed with our recommendations intent, it did not feel it appropriate to mandate that ex-officio members serve in a non-voting capacity. It was the Board's feeling that the decision as to whether or not ex-officio members could vote is up to the

leadership of the organization on which Board the member serves and not an outside organization.

The Board has asked the Constitution and Bylaws Committee to draft an amendment to the Bylaws which would preclude simultaneous Board membership as a condition for KMA Board membership as adopted by the House last year, plus a modified version which would allow officers and/or staff to serve in an ex-officio capacity. The proposed amendments will be considered by the House in September.

Recommendations, Reference Committee No. 6

Reference Committee No. 6 considered this portion of the report (concerning coterminous board membership) of the Committee on Medical Insurance and Prepayment Plan and recommends that this report be filed.

Kentucky Medical Association House Of Delegates

KMA Board Of Trustees

Associate Membership

WHEREAS, physicians in neighboring states who are members of their county and state societies often wish to become less than active members in the Kentucky Medical Association and component societies for various reasons, and

WHEREAS, no such category currently exists, now therefore be it

RESOLVED, that a new subparagraph (3) be added to Chapter I, Section 2 of the Bylaws to state "physicians residing and practicing in communities bordering Kentucky who are members of their home state and county societies and who wish to become less than active members of KMA may become Associate Members."

Recommendations, Reference Committee No. 6

Reference Committee No. 6 reviewed Resolution K, Associate Membership of KMA Board of Trustees and suggests the "RESOLVED" be amended as follows:

The original "RESOLVED" reads:

"RESOLVED, that a new subparagraph (3) be added to Chapter I, Section 2 of the Bylaws to state 'physicians residing and practicing in communities bordering Kentucky who are members of their home state and county societies and who wish to become less than active members of KMA may become Associate Members'."

The revised "RESOLVED" is as follows:

"RESOLVED, that a new subparagraph (3) be added to Chapter I, Section 2 of the Bylaws to state 'physicians residing **and/or** practicing in communities bordering Kentucky who are **active** members of their home state and county societies and who wish to become members of KMA **on an other than actlve basls** may become Associate Members'."

Reference Committee No. 6 recommends adoption of Resolution K as amended.

Mr. Speaker I recommend the adoption of Reference Committee No. 6 as a whole as amended.

I would like to thank the members of the Reference Committee, Doctors James S. Brashear, Harold T. Faulconer, and William B. Monnig for their thoughtful consideration and careful deliberation of the testimonies presented.

Reference Committee No. 6
Edward N. Maxwell, M.D., Louisville, Chairman
James S. Brashear, M.D., Central City
Harold T. Faulconer, M.D., Lexington
William B. Monnig, M.D., Erlanger

Unfinished Business

Doctor Crowder recognized Dwight L. Blackburn, M.D., Chairman of the Board of Trustees. Doctor Blackburn moved, on behalf of the Board of Trustees, that the name of Glenn W. Bryant, M.D., Louisville, be placed in nomination for re-election to a full four-year term on the KMA Judicial Council. The motion was seconded from the floor and carried.

Doctor Crowder then recognized Robert S. Howell, M.D. who read the following Resolution and moved for its adoption. (The motion was seconded from the floor and carried.)

Whereas, Arthur H. Keeney, M.D., D.Sc., has provided extensive support of alumni programming and commitment to raising the academic standard of the University of Louisville School of Medicine.

And whereas, for his years of service and unending enthusiasm toward that institution, the members of the Board of Governors, University of Louisville School of Medicine Alumni on the 9th day of September, 1980, did express their appreciation and place a resolution in the minutes of that organization, therefore be it

Resolved, that the Kentucky Medical Association acknowledge the action of the University of Louisville Alumni, and be it further

Resolved, that the Kentucky Medical Association express its appreciation to Arthur H. Keeney, M.D., D.Sc., for his commitment to academic standards as Dean of the University of Louisville School of Medicine.

Election of Officers

Speaker Crowder announced the results of the election for Vice President, and also asked that the new KMA President-Elect be escorted to the podium. He announced those elected as follows:

President-Elect	Ballard W. Cassady, M.D., Pikeville
Vice President	Charles B. Spalding, M.D., Bardstown

James A. Baumgarten, M.D., Owensboro, a member of the 1980 Nominating Committee, continued with the list of those selected to fill general offices:

AMA Delegate (1)	Harold D. Haller, M.D., Louisville
AMA Alternate Delegate (1)	Kenneth P. Crawford, M.D., Louisville
Speaker, House of Delegates	Bennett L. Crowder, II, M.D., Hopkinsville
Vice Speaker, House of Delegates	Peter C. Campbell, Jr., M.D., Louisville

Doctor Baumgarten then submitted the following nominations for the offices of Trustee and Alternate Trustee on behalf of the district nominating committees:

First District	Wally O. Montgomery, M.D., Paducah
Alternate	John D. Noonan, M.D., Paducah
Third District	Henry R. Bell, M.D., Elkton
Alternate	Sam H. Traughber, M.D., Hopkinsville
Fourth District	Thomas Robert Taylor, M.D., Elizabethtown
Alternate	John W. Ratliff, M.D., Lebanon
Twelfth District	Danny M. Clark, M.D., Somerset
Alternate	David C. Liebschutz, M.D., Danville
Fourteenth District	Charles G. Nichols, M.D., Pikeville
Alternate	Roger D. Akers, M.D., Martin

It was moved and seconded that the above slate of nominees be elected. Motion carried.

Election of 1980 Nominating Committee

The following physicians were elected by the House of Delegates to serve as the Nominating Committee for the 1981 Annual Meeting:
Walter L. Cawood, M.D., Ashland, Chairman
Charles G. Nichols, M.D., Pikeville
Charles H. Nicholson, M.D., Lexington
Ben H. Taylor, M.D., Paducah
William E. Yancey, M.D., Louisville

Board Chairman Blackburn was again recognized who introduced a Resolution from the Board of Trustees thanking those organizations and individuals responsible for the success of the 1980 Annual Meeting. A motion was made, seconded, and carried to adopt the Resolution.

It was announced that the Board of Trustees would hold its reorganizational meeting on Thursday at noon in the Jeffersonian Room in the Ramada Inn.

At 10:07 p.m., Doctor Crowder adjourned the 1980 session of the House of Delegates *Sine Die*.

HOPE...



the Best Christmas Present of All

Getting through a difficult experience is easier if the person — or the family — has hope that one day things will be better. The Salvation Army's practical programs of help make it possible for the discouraged to hope again, to plan for a better future, to work for that future, actively and energetically.

Some of the families who come to The Salvation Army for toys or a good dinner learn that it offers more than a Christmas "handout". Its skilled counsellors help quarrelling families sort out their differences. Start talking to each other again. Bridge the generation gap. Counsel the job seeker. Teach budgeting. Steer burdened parents to other Salvation Army resources— day care centers or after-school recreation.

The goal: to help the family become self-sufficient, able to manage its own affairs, not dependent on charity.

Hope for a better new year is the best Christmas present of all.

Sharing is Caring

THE SALVATION ARMY

1980 CONSTITUTION AND BYLAWS OF THE KENTUCKY MEDICAL ASSOCIATION

Revised September 24, 1980

CONSTITUTION

Article I.	Name of the Association
Article II.	Purpose of the Association
Article III.	Component Societies
Article IV.	Composition and Meetings of the Association
Article V.	Officers
Article VI.	House of Delegates
Article VII.	Districts, Sections and District Societies
Article VIII.	Board of Trustees
Article IX.	Funds and Expenses
Article X.	Referendum
Article XI.	The Seal
Article XII.	Amendments
Article XIII.	Definitions

Article I. Name of Association

The name and title of this organization shall be the Kentucky Medical Association.

Article II. Purpose of the Association

The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge; the advancement of medical science and charity; the evaluation of the standards of medical education; the enactment and enforcement of just medical laws; the promotion of friendly intercourse among physicians and the guarding and fostering of their material interests; the protection of the members thereof against unjust assaults upon their professional care, skill or integrity; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

Article III. Component Societies

Component societies shall consist of those medical societies which hold charters from this Association.

Article IV. Composition and Meetings of the Association

The Association shall consist of the members of the component societies, but the House of Delegates shall have authority to adopt such bylaws regulating the admission and classification of members as it may deem advisable. The Association shall hold an Annual Meeting and such Special Meetings as may be called pursuant to the bylaws.

Article V. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, a Vice-President, a Secretary-Treasurer, a Speaker and Vice-Speaker of the House of Delegates, a Trustee and an Alternate Trustee from each district that may be established; and such other officers as may be provided for in the Bylaws.

Section 2. The eligibility, duties and terms of office of all officers of the Association shall be as prescribed in the Bylaws.

Section 3. All officers shall serve until their successors have been elected and installed.

Section 4. All officers shall be elected by the House of Delegates at its Regular Session and shall take office on the last day of the Annual Meeting.

Article VI. House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association and shall have power, by a two-thirds vote of all the delegates present at that session, to adopt bylaws to carry out the provisions of this Constitution and to provide for the government of the Association in any other manner not inconsistent with this Constitution. It shall meet in Regular Session, annually during the Annual Meeting of the Association, and may be called into Special Session under such conditions as may be prescribed in the bylaws.

Section 2. Delegates shall be members of and elected by component county societies in such a manner as may be provided in the Bylaws. Officers of the Association, Delegates and Alternate Delegates of the American Medical Association and five immediate Past Presidents shall be the ex-officio members of the House of Delegates and entitled to vote. All other Past Presidents and Vice-Presidents and Past Chairmen of the Board of Trustees shall be ex-officio members of the House. They shall have the right to speak and debate on the floor of the House but shall not have the right to make a motion, introduce business or an amendment, or vote.

Section 3. The House of Delegates shall elect a Speaker and a Vice-Speaker, one of whom shall preside during the meetings of the House of Delegates. The presiding officer shall not be entitled to a vote except in the event of a tie.

Section 4. The House of Delegates shall be the final judge as to the qualification of its members.

Article VII. Districts, Sections and District Societies

The House of Delegates shall divide the state into Districts composed of one or more counties, for administrative purposes. It may also provide for a division of the scientific work of the Association into appropriate Sections, and for the organization of such District Societies, composed exclusively of members of component societies, as will promote the best interests of the profession.

Article VIII. Board of Trustees

The House of Delegates shall make provision in the bylaws for a Board of Trustees composed of one Trustee from each District and such of the other officers of the Association as the House may deem appropriate, which shall be charged with the general direction of the Association's affairs during the interim between meetings of the House. The House may delegate such powers to the Board of Trustees as are not specifically required by this Constitution to be exercised by the House, and may limit the

Board's powers to such extent as it may determine to be necessary or desirable, provided, however, that in no event shall the Board of Trustees have power to commit the Association to any course of action which is contrary to or at variance with any policy established by the House of Delegates.

Article IX. Funds and Expenses

The House of Delegates shall provide funds for meeting the expenses of the Association by such methods and from such sources as it may select. Funds may be appropriated by the House of Delegates to defray the expenses of the annual session, for publications, and for such other purposes as will promote the welfare of the Association and the profession.

Article X. Referendum

The membership of the Association, by written petition signed by not less than 10% of the active membership, may obtain a referendum on any question pending before the House of Delegates. The Secretary-Treasurer, upon the presentation of such a petition to him shall cause the question to be submitted to the active membership by mail, and if a majority of the active members shall signify its approval or disapproval of a certain policy or course of action with respect to the question thus submitted, the will of the majority shall determine the question and shall be binding upon the House of Delegates and the Association upon certification of the result of the vote by the Secretary-Treasurer to the President and Board of Trustees.

Article XI. The Seal

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

Article XII. Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Regular Session, provided that such amendment shall have been presented in open meeting at the previous regular session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken.

Article XIII. Definitions

Whenever used in this Constitution, the Articles of Incorporation or the Bylaws—

(a) "County society," "component county society," or "component medical society" means "component society."

(b) "Annual Meeting" means the annual three-day meeting of the Association.

(c) "Scientific Sessions" mean those sessions during the Annual Meeting at which scientific subjects are programmed and discussed.

(d) "Regular Session" means the regular session of the House of Delegates which is held during the Annual Meeting.

(e) "Special Session" means a special, called meeting or session of the House of Delegates.

BYLAWS

Chapter I.	Membership
Chapter II.	Annual and Special Meetings of the Association
Chapter III.	The House of Delegates
Chapter IV.	Election of Officers
Chapter V.	Duties of Officers
Chapter VI.	Board of Trustees
Chapter VII.	Discipline-The Judicial Council
Chapter VIII.	Standing Committees and Councils
Chapter IX.	Assessments and Expenditures
Chapter X.	Rules of Conduct
Chapter XI.	Rules of Order
Chapter XII.	County Societies
Chapter XIII.	Amendments

CHAPTER I. MEMBERSHIP

Section 1. Membership in this Association shall be coterminous with membership in a component county society. No physician shall be eligible for membership in this Association unless he is a member, in good standing of a component society, nor may he maintain membership in a component county society unless he is a member, in good standing of this Association.

When a physician who meets the qualifications hereinafter set forth, is certified to the Secretary-Treasurer as a member in good standing of a component society, properly classified as to type of membership, and when the dues pertaining to his membership classification have been received by the Secretary-Treasurer of the Association, the name of the member shall be included in the official roster of the Association and he shall be entitled to all the privileges of his class of membership. Provided, however, that members in good standing from other state societies may, if admitted to membership by a component society, be accepted by KMA for membership without paying dues for the remainder of the calendar year in which the transfer is made. Provided further, that the Board of Trustees shall have power, upon written application, approved annually by the county society of which the applicant is a member, to excuse any member from the payment of dues because of financial hardship. And provided further, that the Judicial Council, after a hearing, shall have power to condition membership in this Association upon the physician's agreement to limit the scope of his practice in any manner reasonably calculated to protect the public from the adverse effects of any demonstrated frailty or disability of said member.

Section 2. Membership in the Association shall be divided into nine classes, to-wit: Active, Life, In-Training, Associate, Inactive, Student, Service, Honorary and Special.

(a) Active Members. The active membership of the Association shall consist of the active members of the various component medical societies. To be eligible for active membership in any component society, the applicant must be a physician who holds an unrestricted or limited license to practice medicine and surgery in this state, and who is of good moral, ethical and professional standing. Nothing contained herein shall prevent a component society from requiring new members to occupy provisional status for a reasonable time after their admittance to membership under any classification.

(b) Life Members. Component societies may elect as a life-member any doctor of medicine or osteopathy who has served his profession with distinction and who has either reached the age of 70 or has retired from active practice. Life members shall have the right to vote and be entitled to the benefits of Chapter VI, Section 8 of these Bylaws, but shall not pay dues. They shall receive *The Journal* and other publications of the Association.

(c) In-Training Members. Interns, residents, and teaching fellows who are doctors of medicine or osteopathy and who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure. In-training members shall have the right to vote and receive all publications of the Association, but shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates.

(d) Associate Members. The associate membership of the Association shall consist of the associate members of the various component medical societies. To be eligible for associate membership in any component society, the applicant must qualify under one or more of the following groups:

(1) Medical officers of the United States Army, Navy, Air Force, Veterans Administration, Public Health Service, or other federal governmental service while on duty in the State, but shall not be deemed to include physicians employed on a full-time basis by the Veterans Administration.

(2) Dentists may be invited to become Associate members.

(3) Physicians residing and/or practicing in communities bordering Kentucky who are active members of their home state and county societies and who wish to become members of KMA on an other than active basis may become Associate Members.

Associate members shall not have the right to vote nor to hold office, but shall receive *The Journal* and other publications of the Association.

(e) Inactive Members. The inactive membership of the Association shall consist of the inactive members of the various component county societies. Any doctor of medicine licensed to practice medicine in Kentucky who is not engaged in the practice of medicine but who is otherwise eligible for active membership in the Association may be admitted to inactive membership by any component county society. Inactive members shall not have the right to vote nor hold office, but shall receive *The Journal* and other publications of the Association.

(f) Student Members. Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in any accredited medical school in the United States shall be eligible for student membership. They may apply directly to the State Association for membership and be assigned to the county society of their choice. The membership year for student members shall run from October 15 to October 14 of the next year. Student members may not hold office but may be voting members of any committee to which they are appointed. They will be represented in the House of Delegates through one voting representative, a student member of KMA elected by the student body at the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the student body at the University of Louisville School of Medicine.

(g) Service Members. Members of the Association in good standing who enter military service and are ineligible for Associate membership shall be classified as service members. Service Members shall not be required to pay dues. If a member in good standing enters service prior to April 1 and has paid his dues for that year, he shall receive all publications and other benefits applicable to his class of membership in the Association and shall owe no further dues until January 1 following his release. If a member in good standing enters service prior to April 1 without paying his dues for that year, he shall receive publications and other benefits but shall owe the dues applicable to his class of membership immediately following his release from active duty. Members whose dues have not been received by April 1 are not in good standing.

(h) Honorary Members. Any physician possessed of scientific attainments who is a member of a constituent state medical association and who has participated in the program of the scientific session and who is not a citizen of Kentucky may by unanimous vote of the House of Delegates be elected to honorary membership. Honorary members shall be entitled to the privileges of the floor in all scientific sessions.

(i) Special Members. Component societies may invite pharmacists, funeral directors, or other professional persons to become special members. Special members shall have no rights or obligations under these Bylaws, but may be accorded the privilege of attending and participating in the scientific meetings of the society, provided, however, that a registration fee may be required of special members who desire to attend the Annual Meeting of the Association.

Section 3. Guests of Honor. Any distinguished physician not a resident of this State may become a guest of honor during any Annual Meeting upon invitation of the Board of Trustees and shall be accorded the privilege of participating in all of the scientific work of that meeting.

Section 4. No person who is finally convicted of a felony subsequent to September 26, 1968, shall be eligible for membership in this Association unless and until, upon proper application to the Judicial Council, it is determined that he is morally and ethically qualified. Except as provided in Chapter VII, Section 4 of these Bylaws, no person who is under sentence of suspension or expulsion from any component society of this Association shall be entitled to any of the rights or benefits of membership of this Association.

CHAPTER II. ANNUAL AND SPECIAL MEETINGS OF THE ASSOCIATION

Section 1. The Association shall hold its annual and special meetings at such times and places as may be determined by the House of Delegates.

Section 2. The Annual Meeting shall consist of one or more scientific sessions, at least two meetings of the House of Delegates, and such other gatherings as may be authorized by the Board of Trustees. Each scientific session shall be presided over by the President or in his absence or disability or at his request by the President-Elect or such officers as the Board of Trustees may direct. The entire time of the scientific sessions, as far as may be, shall be devoted to papers and discussions related to scientific medicine.

Section 3. The name of a physician upon the properly certified roster of members or list of delegates of a component society which has paid its annual assessment, shall be prima facie evidence of his right to register at any meeting of this Association.

Section 4. Each member in attendance at any meeting shall register indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of the society, he shall receive a badge which shall be evidence of his right to all privileges of membership at that meeting. No member or delegate shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

CHAPTER III. THE HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet in Regular Session at the time and place of the Annual Meeting, and shall, insofar as is practicable, fix its hours of meeting so as to give delegates an opportunity to attend the scientific sessions and other proceedings. Provided, however, that if the business interests of the Association and profession require, the Speaker, with the consent of the Board of Trustees, may convene the Regular Session in advance of the Annual Meeting, and the House may remain in session after the final adjournment thereof.

Section 2. The House may be called into Special Session by the President with the approval of the Board of Trustees, and a special session shall be called by the President on the written request of fifty duly elected delegates of the Association. The purpose of all special sessions shall be stated in the call, and all business transacted at any such special session shall be germane to the stated purpose.

Section 3. When a special session is called, the Secretary-Treasurer shall mail a notice of the time, place, and purpose of such meeting to the last known address of each delegate at least ten days before such session.

Section 4. The Speaker shall, by virtue of his office, be responsible for making all arrangements for all sessions, regular or special, of the House.

Section 5. The members of the House of Delegates shall be elected by the various component societies in the manner prescribed in Chapter XII of these Bylaws.

Section 6. In the event a component society is not represented at any meeting of the House, the Speaker shall consult with any officer of the component society who is in attendance and, with the approval of the Credentials Committee, may appoint any active member of such component society who is in attendance, as its alternate delegate. If no officer of such society is present, the Speaker may make the appointment without consultation, but with the approval of the Credentials Committee. All such appointments shall also be subject to the approval of the House.

Section 7. Forty per cent of the qualified delegates, as defined by Article VI of the Constitution, shall constitute a quorum and all of the meetings of the House shall be open to the members of the Association. The House shall have the right to go into executive session whenever in its judgment such action is indicated; except that active members of the Association shall have the right to attend all executive sessions.

Section 8. Each resolution introduced into the House shall be in writing and signed by the author and presented to the Secretary-Treasurer following its introduction. If the author presenting the resolution presents it as an individual member of the Kentucky Medical Association, the resolution shall be signed by him. If the author be a group of members or component society, the resolution shall be signed by the authorized spokesman for that group. Immediately after the resolution has been introduced, it shall be referred to the proper Reference Committee before action thereon is taken.

Section 9. No resolution shall be introduced in the first meeting of the House of Delegates by any member or group of members other than the Board of Trustees unless a copy thereof was furnished to the Headquarters Office at least seven days prior to its introduction. The only exception to this shall be that a resolution which has been signed by ten or more members of the House of Delegates and of which there are sufficient printed copies to distribute to each member of the House of Delegates may be received for consideration by an affirmative vote of three-fourths of the members present and voting. No new business shall be introduced in the last meeting of the House without unanimous consent, except when presented by the Board of Trustees. All new business so presented shall require the affirmative vote of three-fourths of those delegates present and voting, for adoption.

Section 10. The House shall give diligent attention to and foster the scientifc work and spirit of the Association, and shall constantly study and strive to make each Annual Meeting a stepping stone to further ones of higher interest.

Section 11. It shall consider and advise as to the material interests of the profession, and of the public in those important matters wherein the public is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse information in relation thereto.

Section 12. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality and shall continue these efforts until every physician in every county of the State who will agree to abide by the constitution, bylaws and other rules and regulations of the Association and the appropriate component society, has been brought under medical society influence.

Section 13. It shall encourage postgraduate work in medical centers as well as home study and research and shall endeavor to have the results of the same utilized and intelligently discussed in the county societies.

Section 14. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Section 15. It shall, upon application, provide and issue charters to county societies organized in conformity with the Constitution and Bylaws of this Association.

Section 16. The state shall be divided into the following districts:

No. 1—Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, McCracken, and Marshall.

No. 2—Daviess, Hancock, Henderson, McLean, Ohio, Union, and Webster.

No. 3—Caldwell, Christian, Crittenden, Hopkins, Lyon, Muhlenberg, Todd, and Trigg.

No. 4—Breckinridge, Bullitt, Grayson, Green, Hardin, Hart, Larue, Marion, Meade, Nelson, Taylor, and Washington.

No. 5—Jefferson.

No. 6—Adair, Allen, Barren, Butler, Cumberland, Edmonson, Logan, Metcalf, Monroe, Simpson, and Warren.

No. 7—Anderson, Carroll, Franklin, Gallatin, Grant, Henry, Oldham, Owen, Shelby, Spencer, and Trimble.

No. 8—Boone, Campbell, and Kenton.

No. 9—Bath, Bourbon, Bracken, Fleming, Harrison, Mason, Nicholas, Pendleton, Scott, and Robertson.

No. 10—Fayette, Jessamine, and Woodford.

No. 11—Clark, Estill, Jackson, Lee, Madison, Menifee, Montgomery, Owsley, Powell, and Wolfe.

No. 12—Boyle, Casey, Clinton, Garrard, Lincoln, McCreary, Mercer, Pulaski, Rockcastle, Russell, and Wayne.

No. 13—Boyd, Carter, Elliott, Greenup, Lawrence, Lewis, Morgan, and Rowan.

No. 14—Breathitt, Floyd, Johnson, Knott, Letcher, Magoffin, Martin, Perry, and Pike.

No. 15—Bell, Clay, Harlan, Knox, Laurel, Leslie, and Whitley.

District meetings may be held as desired, and District Medical Associations may be organized as desired, according to the districts outlined above.

Section 17. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

Section 18. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, except as provided in Chapter VI, Section 4, and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.

Section 19. A digest of proceedings of the House of Delegates shall be published and distributed to the membership annually.

CHAPTER IV. ELECTION OF OFFICERS AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice-President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years, with the provision that no more than one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years, but no member shall be eligible for election to more than two consecutive full terms as Secretary-Treasurer. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice-President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

Section 2. During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman. The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees, and shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the committee shall have a hearing. The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post for information all eligible and willing candidates proposed for offices elected from the state at large. Before noon of the day following the opening meeting, the committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nomination, or nominations, for each office to be filled, and shall formally present said nomination, or nominations, to the House at the time of the election. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation, or disability, shall be filled by appointment of the Speaker.

Section 3. The election of officers and delegates to the AMA and their alternates shall be held at the second meeting of the regular session of the House of Delegates.

Section 4. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, provided, however, that when there are more than two nominees, the nominee receiving the least number of votes on the first ballot shall be dropped and the balloting shall continue in like manner until an election occurs.

Section 5. Any member may make known his availability for any office within the gift of the Association. However, it would be regarded as unseemly for any member to actively campaign for his own election.

Section 6. The Delegates representing the counties in each District form the Nominating Committee for the purpose of nominating a Trustee and an Alternate Trustee for the District concerned. This committee shall hold a well publicized meeting open to all active members of the District concerned who are in attendance at the Annual Meeting for the purpose of discussing the nomination of the Trustee and his Alternate to serve the District. Additional nominations may be made from the floor when the Nominating Committee makes its report to the House of Delegates.

CHAPTER V. DUTIES OF OFFICERS OTHER THAN TRUSTEES AND ALTERNATES

Section 1. Except as provided in Chapter II, Section 2 hereof, the President shall preside at all scientific sessions of the Association and shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such duties as custom and parliamentary usage may require. He shall be the real head of the profession in the State during his term of office and so far as practicable, shall visit or cause to be visited on his behalf, the various sections of the State and assist the Trustees in building up the county societies and in making their work more practical and useful. He shall be reimbursed for his reasonable and necessary travel expense incurred in the performance of his duties as President.

Section 2. The President-Elect shall assist the President in visitation of county and other meetings. He shall become president of the Association at the next Annual Meeting following his election as president-elect. In the event of his death or resignation, or if he becomes permanently disqualified or disabled, his successor shall be elected by the House of Delegates and shall be installed as President of the Association at its next regular session.

Section 3. The Vice President shall assist the President in the discharge of his duties, and shall perform such other duties as may be prescribed by the Board of Trustees. In the event of a vacancy in the office of the President, the Vice-President shall succeed to the office of the President.

Section 4. The President-Elect and the Vice-President, when acting for and in behalf of the President, may be reimbursed for their reasonable and necessary travel expenses incurred in the performance of their duties in such amounts as may be available out of the sum appropriated in the annual budget for traveling expenses.

Section 5. The Speaker of the House shall preside at all meetings of the House of Delegates. He shall appoint all committees of the House of Delegates with the approval of the House of Delegates. He shall be a non-voting member of said committees, and shall perform such other duties as custom and parliamentary usage may require.

Section 6. The Vice Speaker shall assume the duties of the Speaker in his absence and shall assist the Speaker in the performance of his duties. In the event of the death, disability, resignation, or removal of the Speaker, the Vice Speaker shall automatically become Speaker of the House of Delegates.

Section 7. The Secretary-Treasurer shall advise the Executive Vice President in all administrative matters of this Association and shall act as the corporate secretary insofar as the execution of official documents or institution of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, and as may be prescribed by the Board of Trustees. The Secretary-Treasurer shall demand and receive all funds due the Association, including bequests and donations. He shall, if so directed by the House of Delegates, sell or lease any real estate belonging to the Association and execute the necessary papers and shall, subject to such

direction, have the care and management of the fiscal affairs of the Association. All vouchers of the Association shall be signed by the Executive Vice President or his designee and shall be countersigned by the Secretary-Treasurer of the Association. When one or more of the above-named officials are not readily available, four specifically designated representatives of the Executive Committee are authorized to countersign the vouchers, provided that in any event all vouchers of the Association shall bear a signature and a countersignature. The four members of the Executive Committee authorized to countersign vouchers shall be designated by the Board during their reorganizational meeting in September and, whenever possible should be easily accessible from the KMA Headquarters Office. All those authorized to countersign vouchers shall be required to give bond in an amount to be determined by the Board of Trustees. The Secretary-Treasurer shall report the operations of his office annually to the House of Delegates, via the Board of Trustees, and shall truly and accurately account for all funds belonging to the Association and coming into his hands during the year. His accounts shall be audited annually by a certified public accountant appointed by the Board of Trustees.

CHAPTER VI. BOARD OF TRUSTEES

Section 1. The Board of Trustees shall be the executive body of the House of Delegates and between sessions of the House of Delegates shall exercise the powers conferred upon the House of Delegates by the Constitution and Bylaws. The Board of Trustees shall consist of the duly elected Trustees and the President, the President-Elect, the Vice-President, the immediate Past-President, the Speaker, and Vice-Speaker of the House of Delegates, the Secretary-Treasurer, and the Delegates and Alternate Delegates to the American Medical Association. The Executive Committee of the Board of Trustees shall consist of the President, the Vice-President, the President-Elect, the Secretary-Treasurer, the Chairman of the Board of Trustees, the Vice Chairman of the Board of Trustees, and two trustees to be elected annually by the Board of Trustees. A majority of the full Board, to-wit, 14, and a majority of the full Executive Committee, to-wit, 5, shall constitute a quorum for the transaction of all business by either body. Between sessions of the Board, the Executive Committee shall exercise all of the powers belonging to the Board except those powers specifically reserved by the Board to itself.

Section 2. The Board shall meet daily, or as required, during the Annual Meeting of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Trustees. It shall meet on the last day of the Annual Meeting for reorganization and for the outlining of the work for the ensuing year. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided, which report shall include an audit of the accounts of the Secretary-Treasurer and other agents of this Association and which shall also specify the character and cost of all the publications of the Association during the year, and the amounts of all other property belonging to the Association, or under its control, with such suggestions as it may deem necessary. By accepting or rejecting this report, the House may approve or disapprove the action of the Board of Trustees in whole or in part, with respect to any matter reported upon therein. In the event of a vacancy in any office other than that of President, the Board may fill the same until the annual election.

Section 3. Each Trustee shall be organizer, peacemaker and censor for his district. He shall hold at least one district meeting each year for the exchange of views on problems relating to organized medicine and for postgraduate scientific study. The necessary traveling expenses incurred by a Trustee in the line of his duties herein imposed may be paid by the Secretary-Treasurer upon a proper itemized statement but this shall not be constituted to include his expenses in attending the Annual Meeting of the Association.

Section 4. The Board shall have the authority to communicate the views of the profession and of the Association in regard to health, sanitation, and other important matters, to the public and press.

Section 5. The Journal of the Kentucky Medical Association shall be the official organ of the Association and shall be published under the supervision of the Board. The Editor of the Journal shall be elected by the Board. All money received by the Journal or by any member of its staff on its behalf, shall be paid to the Secretary-Treasurer on the first of each month. The Board shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Association, and shall have authority to appoint such assistants to the Editor as it deems necessary.

Section 6. All commercial exhibits during the Annual Meeting shall be within the control and direction of the Board.

Section 7. In the event of the death, resignation, removal or disability of a Trustee, between sessions of the House of Delegates, the Alternate Trustee shall succeed to the office of Trustee. In the case of disability, the Alternate shall serve until the disability is removed or the Trustee's term expires, and in the absence of the Trustee, the Alternate Trustee shall vote in his place and stead.

Section 8. The Association, upon the request of any member in good standing who is a defendant in a professional liability suit, will provide such member with the consultative service of competent legal counsel selected by the Secretary-Treasurer acting under the general direction of the Executive Committee. In addition, the Association may, upon application to the Board outlining unusual circumstances justifying such action, provide such member with the services of an attorney selected by the Board to defend such suit through one court.

Section 9. The Board shall employ an Executive Vice President whose principal duty shall be to carry out and execute the policies established by the House of Delegates and the Board. His compensation shall be fixed by the Board. The Executive Vice President shall act as general administrative officer and business manager of the Association and shall perform all administrative duties necessary and proper to the general management of the Headquarters Office, except those duties which are specifically imposed by the Constitution and Bylaws upon the officers, committees, councils and other representatives of the Association. He shall refer to the various elected officials all administrative questions which are properly within their jurisdiction.

He shall attend the Annual Meeting, the meetings of the House of Delegates, the meetings of the Board, as many of the committee and council meetings as possible, and shall keep separately the records of their respective proceedings. He shall, at all times, hold himself in readiness to advise and aid, so far as is possible and practicable, all officers, committees, and councils of the Association in the performance of their duties and in the furtherance of the purposes of the Association. He shall be allowed traveling expenses to the extent approved by the Board.

He shall be the custodian of the general papers and records of the Association (including those of the Secretary-Treasurer) and shall conduct the official correspondence of the Association. He shall notify all members of meetings, officers of their election, and committees and councils of their appointment and duties.

He shall account for and promptly turn over to the Secretary-Treasurer all funds of the Association which come into his hands. It shall be his duty to receive all bills against the Association, to investigate their fairness and correctness, to prepare vouchers covering the same, and to forward them to the Secretary-Treasurer for appropriate action. He shall keep an account with the component societies of the amounts of their assessments, collect the same, and promptly turn over the proceeds to the Secretary-Treasurer. He shall, within thirty days preceding each Annual Meeting, submit his financial books and records to a certified public accountant, approved by the Board, whose report shall be submitted to the House of Delegates.

He shall keep a record of all physicians in the State by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association.

He shall act as Managing Editor, or otherwise supervise the publication of *The Journal of the Kentucky Medical Association* and such other publications as may be authorized by the House of Delegates, under the guidance and direction of the Board.

He shall perform such additional duties as may be required by the House of Delegates, the Board, or the President, and shall employ such assistants as the Board may direct. He shall serve at the pleasure of the Board, and in the event of his death, resignation, or removal, the Board shall have the power to fill the vacancy. From time to time, or as directed by the Board, he shall make written reports to the Board and House of Delegates concerning his activities and those of the Headquarters Office.

CHAPTER VII. DISCIPLINE — THE JUDICIAL COUNCIL

Section 1. There is hereby created a Judicial Council composed of the Secretary-Treasurer of the Association and four members to be elected by the House of Delegates for terms of four years each. One member shall be elected from each of the traditional eastern, western, and central districts, and one member from the state at large. Members of the first Judicial Council shall be elected for terms of one, two, three, and four years, respectively so that thereafter, one member will be elected each year. The Council shall annually elect a chairman.

To be eligible for membership on the Judicial Council, a nominee shall possess at least one of the following qualifications: (1) Have served one term as an officer, trustee, or a Delegate to the AMA or (2) Have served five years as a member of the House of Delegates.

It shall be the duty of the Board of Trustees to nominate at least one candidate for each vacancy on the Judicial Council, but additional nominations may be made from the floor. Vacancies which occur between Regular Sessions of the House of Delegates, shall be filled by the Board of Trustees. No member, other than the Secretary-Treasurer shall serve more than two consecutive terms.

Section 2. The Judicial Council shall be the Board of Censors of the Association. It shall be the final arbiter of all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All charges of breach of medical ethics brought before the House of Delegates shall be referred to the Judicial Council without discussion. A member who has been convicted of a felony or of any violation of the Medical Practice Act, or who violates any of the provisions of the constitution, bylaws, or any rule or regulation of this Association, or the Principles of Ethics of the American Medical Association shall be liable to censure, fine, suspension, or expulsion upon order of the Judicial Council. Provided, however, that if in addition to discipline by the Association, the Judicial Council shall be of the opinion that the offending member's license to practice medicine should be revoked, it shall report this to the Board of Trustees as a recommendation that the Board refer the matter to the State Board of Licensure for this purpose.

Suspension shall be for a specified period during which the member shall remain liable for the payment of dues but shall not be eligible to hold office, attend business meetings or otherwise participate in Associational activities at the county, district or state levels. Upon the expiration of the period of suspension, every suspended member shall be automatically restored to all of the rights and privileges of his class of membership unless the Judicial Council determines that his conduct during the period of suspension indicates that he is unworthy of such restoration, in which event his suspension may be extended or he may be expelled.

Upon the complaint of any member or aggrieved individual involved, the Judicial Council may initiate disciplinary proceedings against any member, and may intervene in or supersede county, individual trustee, or district disciplinary proceedings, whenever in its sole judgment and opinion, a disciplinary matter is not being handled in an expeditious manner, and may render a decision therein. In all cases in which the Association, rather than a member or aggrieved individual, appears to be the real party in interest, the Judicial Council may refer the complaint to the Board of Trustees for a determination as to whether probable cause for disciplinary action exists. If the Board of Trustees resolves this question in the affirmative, it shall so charge the respondent, and a representative of the Board shall thereupon be responsible for presenting the evidence in support of such charge at any hearing held thereon.

In all proceedings of the Judicial Council, the due process requirements of reasonable notice and a full and fair hearing shall be observed. No recommended disciplinary decision of an individual trustee or any district grievance committee shall become effective unless and until approved by the Judicial Council.

Section 3. It shall consider all appeals from the recommended decisions of individual trustees and District Grievance Committees. In the case of appeals from the decisions of individual trustees, the Judicial Council may admit such oral or written eveidence as in its judgment will best and most fairly present the facts, but all appeals from the recommended decisions of District Grievance Committees shall be considered on the record made before such committee. It shall be the duty of the Secretary to notify the parties with respect to its disposition of each case.

Section 4. The Judicial Council may hear appeals from the disciplinary orders of component societies. Provided, however, that such appeals shall be considered on the record made before the component societies.

Section 5. Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. A party aggrieved by the decision of the Judicial Council may seek an appeal to the Judicial Council of the American Medical Association in accordance with the jurisdiction, rules and regulations of that Association.

Section 6. Component societies are encouraged to create suitable disciplinary procedures which guarantee due process, and to dispose of all disciplinary problems which come to their attention. It is recognized, however, that it may not be feasible for some societies to do so, and the District Grievance Committees hereinafter created, are designed to meet the needs of county societies which are without a functioning grievance committee.

Section 7. The trustee of each district is hereby designated the chairman of his District Grievance Committee. The Judicial Council shall designate two additional trustees from districts adjoining that of the chairman, and the three trustees thus selected shall constitute the District Grievance Committee. All grievances which cannot be resolved by individual trustees, shall be referred to the local grievance committee or the district grievance committee for the district in which the respondent physician or county society resides.

Section 8. District Grievance Committees shall investigate every grievance coming to their attention, taking care that the physician complained of shall have ample opportunity to respond to the complaint. If, after careful investigation, the complaint appears to be without merit, the committee shall so report to the Judicial Council, including sufficient facts in its report to enable Judicial Council to form its own conclusions.

If the District Grievance Committee's investigation indicates that the member may be a proper subject of disciplinary action, the committee shall, upon reasonable notice, hold a hearing at which the complainant and the respondent shall be entitled to be represented by counsel, to present the testimony of witnesses in his behalf, and to cross-examine witnesses against him. All testimony shall be under oath and shall be recorded by a competent reporter at the expense of the Association, but shall not be transcribed unless and until an appeal is taken as hereinafter provided.

When all of the testimony has been heard and all evidence received, the committee shall make written findings and recommendations which it shall transmit to the Judicial Council, furnishing copies thereof to the parties.

Section 9. Any party aggrieved by the findings or recommendations of the committee, may, within 30 days, appeal to the Judicial Council. Appeals shall be taken by filing with the Secretary-Treasurer a copy of the entire record made before the District Grievance Committee (including a transcript of the testimony, procured at the appellant's expense) together with a written statement of appeal pointing out in detail wherein the committee has erred, and directing the attention of the Judicial Council to those portions of the transcript upon which he relies, provided, however, that the Judicial Council may extend the time in which the transcript must be filed, upon request made within the initial thirty-day period.

Section 10. No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judicial Council submitted to the House of Delegates may be accepted or rejected or referred back to the Judicial Council but not modified by the House of Delegates.

CHAPTER VIII. COMMITTEES AND COMMISSIONS

Section 1. The Board of Trustees shall have authority from time to time to appoint, fix the duties of, and abolish such standing committees and commissions as it deems necessary or desirable to assist it in carrying on the Association's activities in the fields of business and scientific meetings, medical education and hospitals, legislation, medical services, communications and public service, and governmental medical services.

Section 2. The Executive Committee shall serve as the nominating committee for all standing committee and commission appointments, but the trustees may make additional nominations. When the Executive Committee sits as such nominating committee, the President-Elect shall serve as Chairman.

Section 3. The President, with the advice and consent of the Chairman of the Board of Trustees, may appoint temporary ad hoc committees to perform specified functions. All such committees shall expire at the end of the term of the President by whom appointed.

Section 4. No committee or commission shall have power or authority to fix or determine Associational policy or to commit the Association to any course of action, such powers being expressly reserved to the House of Delegates and the Board of Trustees.

CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, $225; (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-obligated service shall pay $112.50 their first full year of membership); (2) Life Members, no dues; (3) Associate Members, $25; (4) In-Training Members, $20; (5) Inactive Members, $25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be pro-rated on the basis of the date of his application. Dues fixed by these By-laws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county to the Secretary-Treasurer of this Association as of the first day of January each year.

Section 2. Unless otherwise provided by the Board of Trustees pursuant to Section 1 hereof, any component society which fails to pay its assessments, or make the report as required, on or before the first day of April in each year, shall be held as suspended and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 3. All motions and resolutions appropriating money shall specify a definite amount or so much thereof as may be necessary for the purpose, and must have prior approval of the Board of Trustees before they can become effective. No motion or resolution, the adoption of which would require a substantial expenditure of funds, shall be considered by the House of Delegates unless the funds have been budgeted or are provided by the motion or resolution.

CHAPTER X. RULES OF CONDUCT

The principles set forth in the Principles of Ethics of the American Medical Association, together with the Constitution and Bylaws of the Association and all duly adopted resolutions of the House of Delegates, shall govern the conduct of members in their relation to each other and to the public.

CHAPTER XI. RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in the latest edition of Sturgis' Standard Code of Parliamentary Procedure, unless otherwise determined by a vote of its respective bodies.

CHAPTER XII. COUNTY SOCIEITES

Section 1. Except as provided in Section 3 of this Chapter, all county medical societies in this State which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

The House of Delegates shall have authority to evoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and Bylaws.

Section 2. As rapidly as can be done after the adoption of this Constitution and Bylaws, a medical society shall be organized in every county in the state in which no component society exists, and charters shall be issued thereto.

Section 3. Only one component society shall be chartered in any county. Membership in the component society thus created shall entitle the members thereof to all the rights and benefits of membership in the Kentucky Medical Association.

Section 4. In sparsely settled sections two or more component societies may join for scientific programs, the election of officers, and such other matters as they may deem advisable. The component societies thus combined shall not lose any of their privileges or representation. The active members of each component society shall annually elect at least a Secretary and a Delegate for the transaction of its business with the Association.

Two or more adjacent component societies may also combine into one multi-county component society by adopting resolutions to that effect at special meetings called for that purpose on at least ten days' notice. Copies of the resolution, certified as to their adoption by the Secretary of each society, shall be forwarded to the Headquarters Office. If approved by the Board of Trustees, the multi-county society shall thereupon be issued a charter, the consolidating county societies shall cease to exist and the multi-county society shall become a component society of this Association; provided, however, that the active members residing in each county comprising the multi-county society shall be entitled to elect a delegate or delegates to the House of Delegates, as if each such county constituted a component society within the meaning of Section 11 of this Chapter; and provided, further, that multi-county societies may elect, at large, one alternate delegate for each delegate to which it is entitled under this section and such alternate may serve in the absence of the delegate for whom he is the designated alternate.

Section 5. Each component society shall be the sole judge of the qualifications of its own members. All members of component societies shall be members of the Kentucky Medical Association and shall be classified in accordance with Chapter I, Section 2 of these Bylaws, provided, however, that no physician who is under suspension or who has been expelled shall thereafter, without reinstatement by the Board of Trustees be eligible for membership in any component society. Any physician who desires to become a member of the Kentucky Medical Association shall first apply to the component society in the county in which he resides, for membership therein. Except as hereinafter provided in Sections 6 and/or 8 of this chapter, no physician shall be an active member of a component society in any county other than the county in which he resides.

Section 6. Any physician who may feel aggrieved by the action of the component society of the county in which he resides, in refusing him membership, shall have the right to appeal to the Board of Trustees, which, upon a majority vote, may permit him to apply for membership in a component society in a county which is adjacent to the county in which he resides.

Section 7. When a member in good standing in a component society moves to another county in the State, his name, upon request, shall be transferred without cost to the roster of the component society into whose jurisdiction he moves, if he is admitted to membership therein.

Section 8. A physician whose residence is closer to the headquarters of an adjacent component society than it is to the headquarters of the component society of the county in which he resides, may, with the consent of the component society within whose jurisdiction he resides, hold membership in said adjacent component society.

Section 9. Each component society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Upon reasonable notice and after a hearing, component societies may discipline their members by censure, fine, suspension or expulsion, for any breach of the Principles of Medical Ethics or any bylaw, rule or regulation lawfully adopted by such societies or this Association. At every hearing, the accused shall be entitled to be represented by counsel and to cross-examine witnesses, and the society shall cause a stenographic record to be made of the entire proceedings. The stenographer's notes need not be transcribed unless and until requested by the respondent member.

Any physician aggrieved by the disciplinary action of a component society may, within ninety (90) days, appeal to the Judicial Council, whose decision shall be final. This appeal shall be in writing and shall point out in detail the errors committed by the county society. It shall be accompanied by a transcript of the proceedings before the county society, procured at appellant's expense, and the statement of appeal shall direct the attention of the Judicial Council to those portions of the transcript upon which he relies.

Any member who fails or refuses to comply with the lawful disciplinary orders of his component society shall, if such failure or refusal continues for more than thirty (30) days, be automatically suspended from membership, provided, however, that an appeal shall stay the suspension until a final decision is made by the Judicial Council.

The resignation of a member against whom disciplinary charges are pending or who is in default of the disciplinary judgment of his county society, a district grievance committee or the Board of Trustees shall not be accepted and no member who is suspended or expelled may be reinstated or readmitted unless and until he complies with all lawful orders of his component society and the Board of Trustees.

Section 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. Members shall be especially encouraged to do postgraduate and original research work, and to give the society the first benefit of such labors. Official positions and other references shall be unstintingly given to such members.

Section 11. At the time of the annual election of officers, each component society shall elect a delegate or delegates to represent it in the House of Delegates. The term of a delegate shall commence on the first day of the regular session of the House following his election, and shall end on the day before the first day of the next regular session, provided, however, that component societies may elect delegates for more than one term at any election. Each component society may elect one delegate for each 25 voting members in good standing, plus one delegate for one or more voting members in excess of multiples of 25, provided, however that each component society shall be entitled to at least one delegate regardless of the number of voting members it may have and that each multi-county society shall be entitled to the same number of delegates as its component societies would have had. The secretary of the society shall send a list of such delegates to the Secretary-Treasurer of this Association not later than 45 days before the next Annual Meeting. It shall be the obligation of a component society which elects delegates to serve more than one year, to provide the KMA Headquarters Office with a certified list of its delegates each year.

Section 12. The secretary of each component society shall keep a roster of its members and a list of non-affiliated licensed physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall furnish an official report containing such information upon blanks supplied him for the purpose, to the Secretary-Treasurer of the Association, on the first day of January of each year or as soon thereafter as possible, and at the same time the dues accruing from the annual assessment are sent in. In keeping such roster the secretary shall note any change in the personnel of the profession by death or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

CHAPTER XIII. AMENDMENTS

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at a meeting of that session, provided: (1) the amendment proposed is presented in writing to the Delegates thirty days prior to the meeting, or (2) the amendment is introduced in writing at a regular meeting of the House of Delegates during the session and considered at the following meeting of the session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final meeting of a session of the House of Delegates, but, not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual Delegate at the final meeting of a session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studied by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final meeting is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

Being a deaf dancer is really something.





It looks like any other dance class. The dancers watch their movements in the mirror, giggle, make mistakes, master a position. Yet, Nancy Hlibok and the other students in this class at the Joffrey Ballet School are deaf. Physical response to the vibrations of the music, sign language and an inspiring teacher, Meredith Baylis, make it possible.

The students take pride in their dancing. All are lively and determined. Some would like to become professional dancers.

They probably will.

We love the same country.
We care about the same things.
We dream the same dreams.
1981. The International Year Of Disabled Persons.

President's Committee on Employment of the Handicapped
Washington, D.C. 20210
The School of Visual Arts Public Advertising System

In G.I. therapy



Adjunctive Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE®

Roche Products, Inc
Manati, Puerto Rico 00701

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres® has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

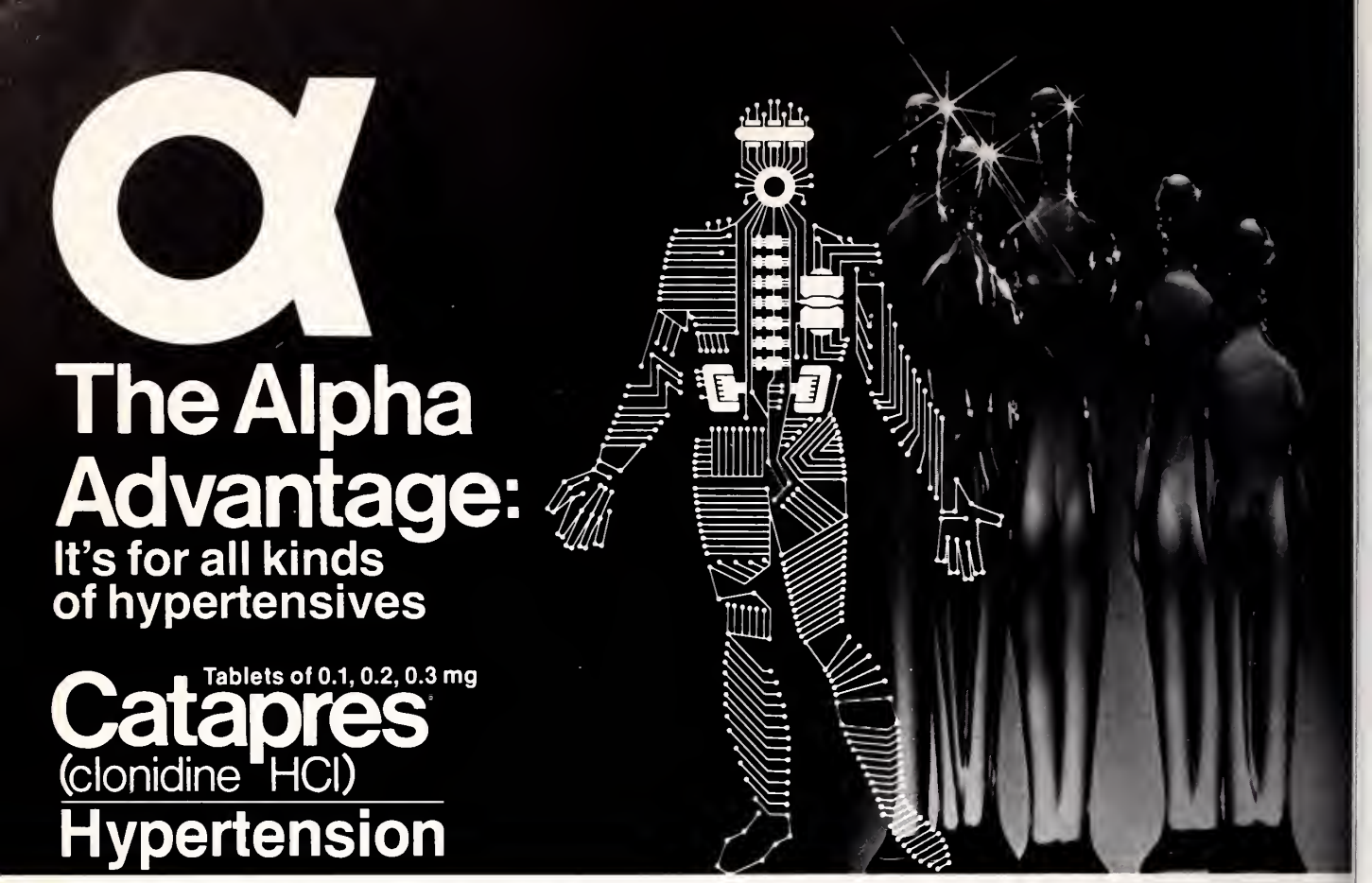
1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets

Tablets of 0.1, 0.2, 0.3 mg

Catapres®
(clonidine HCl)
Hypertension



The Alpha Advantage:

It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg

Catapres

(clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
Under license from Boehringer Ingelheim GmbH

BOEHRINGER INGELHEIM

Boehringer Ingelheim

Boehringer Ingelheim Ltd.
Ridgefield, CT 06877

1980-81 KMA COMMITTEES

Scientific Program Committee

James A. Baumgarten, M.D., Owensboro, Chairman
Peter C. Campbell, M.D., Louisville
Max A. Crocker, M.D., Lexington
Frank R. Pitzer, M.D., Hopkinsville
Hiram C. Polk, Jr., M.D., Louisville
Sam H. Traughber, M.D., Hopkinsville

President-Elect

Karen J. Barnes, Lexington (student)
Norm Angell, Louisville (student)

Scientific Exhibits Committee

Richard A. Kielar, M.D., Lexington, Chairman
James P. Moss, M.D., Louisville
John W. Ratliff, M.D., Lebanon
Sibu Saha, M.D., Lexington
Brett Coldiron, Lexington (student)

Awards Committee

S. Randolph Scheen, M.D., Louisville, Chairman
Delmas M. Clardy, M.D., Hopkinsville
Robert S. Howell, M.D., Louisville
David A. Hull, M.D., Lexington
Edward N. Maxwell, M.D., Louisville
Wyatt Norvell, M.D., New Castle
Paul J. Parks, M.D., Bowling Green

Continuing Medical Education Committee

Stuart Graves, Jr., M.D., Louisville, Chairman
James A. Baumgarten, M.D., Owensboro
Garry N. Binegar, M.D., Owensboro
Charles M. Brohm, M.D., Louisville
Andrew Bustin, M.D., Frankfort
Noel D. Canlas, M.D., Henderson
John W. Cullen, M.D., Lexington
Stuart A. Fink, M.D., Louisville
Henry D. Garretson, M.D., Louisville
Allen E. Grimes, Jr., M.D., Lexington
John M. Johnstone, M.D., Berea
Frank R. Lemon, M.D., Lexington
Sally S. Mattingly, M.D., Lexington
James A. Parrott, M.D., Hopkinsville
Hiram C. Polk, M.D., Louisville

Continuing Medical Education Committee

Bob Powell, M.D., Louisville
James E. Redmon, Jr., M.D., Louisville
J. David Richardson, M.D., Louisville
Joseph E. Roe, M.D., Madisonville
Nelson B. Rue, M.D., Bowling Green
Charles R. Sachatello, M.D., Lexington
Paul J. Sides, M.D., Lancaster
Bruce M. Stapleton, M.D., Ashland
William J. Temple, M.D., Covington
Wes Brewer, Lexington (student)
Chris Ford, Louisville (student)

Ex-Officio:

Gerald Swim, Louisville
KHA Representative

Cancer Committee

P. Raphael Caffrey, M.D., Lexington, Chairman
Ben M. Birkhead, M.D., Louisville
E. Dean Canan, M.D., Louisville
John D. Cronin, M.D., Lexington
Laman A. Gray, Sr., M.D., Louisville
Kenneth R. Hauswald, M.D., Ashland
C. Hernandez, M.D., Frankfort
Yosh Maruyama, M.D., Lexington
Joseph L. Milburn, M.D., Madisonville
Condict Moore, M.D., Louisville
Lynn L. Ogden, M.D., Louisville
B. F. Roach, M.D., Midway
George B. Sanders, M.D., Louisville
John S. Spratt, M.D., Louisville
George R. Tanner, M.D., Fort Thomas
John Van Nagell, M.D., Lexington
Max E. Wheeler, M.D., Ashland
Debbie Sowell, Lexington (student)
Alvin Martin, Louisville (student)

Ex-Officio:

Wayne B. Miller, Louisville
Mary Ann Rand, R.N., Louisville
Colonel Charles Tucker, Louisville

Maternal Mortality Study Committee

John W. Greene, M.D., Lexington, Chairman
Roger D. Akers, M.D., Wheelwright
John W. Ambach, Sr., M.D., Louisville
Gordon D. Betts, M.D., Somerset
Stephen M. Bobys, M.D., Lexington
Glenn W. Bryant, M.D., Louisville
Joseph F. Daugherty, M.D., Florence
Arthur J. Donovan, Jr., M.D., Louisville
David L. Douglas, M.D., Frankfort

William D. Durham, M.D., Louisville
Jerry T. Hart, M.D., Hopkinsville
Robert L. Houston, Jr., M.D., Eminence
Victor J. Magary, M.D., Ludlow
Terrell D. Mays, M.D., Elizabethtown
Clarence J. McGruder, M.D., Henderson
Charles R. Oberst, M.D., Louisville
R. D. Pitman, M.D., Williamsburg
Roy M. Slezak, M.D., Bowling Green
James F. Williamson, M.D., Ashland
Walter M. Wolfe, Jr., M.D., Louisville
Donna S. McDonald, Lexington (student)
Marge Fitzgerald, Louisville (student)

Committee on Maternal and Child Health

Van R. Jenkins, M.D., Lexington, Chairman
Christopher Boorman, M.D., Lexington
Danny M. Clark, M.D., Somerset
Larry N. Cook, M.D., Louisville
William D. Hacker, M.D., Corbin
William H. Keller, M.D., Frankfort
Paul G. Kyker, M.D., Lexington
Ronald J. Lubbe, M.D., Fort Mitchell
Patricia Nicol, M.D., Frankfort
Thomas H. Pauly, M.D., Lexington
Clinton Ray Potts, M.D., Louisville
Joan E. Rider, M.D., Lexington
William F. Schnitzker, M.D., Ashland
Roger J. Shott, M.D., Louisville
Charles B. Spalding, M.D., Bardstown
Walter H. Zukof, M.D., Louisville
Duncan R. Campbell, M.D., Hopkinsville
Deborah Rose, Lexington (student)
Bobby C. Baker, Louisville (student)

Hospital Committee

Royce E. Dawson, M.D., Owensboro, Chairman
R. Burke Casper, M.D., Louisville
Hal E. Houston, Jr., M.D., Murray
Laszlo Makk, M.D., Louisville
William B. Monnig, M.D., Erlanger
John D. Perrine, M.D., Lexington
Oliver R. Roth, M.D., Ashland
Jo Anne Sexton, M.D., Hazard

Committee on Medical Insurance and Prepayment Plans

Earl P. Oliver, M.D., Scottsville, Chairman
Glenn W. Bryant, M.D., Louisville
Michael E. Daugherty, M.D., Lexington
C. Douglas LeNeave, M.D., Mayfield
William B. Monnig, M.D., Erlanger
Donald R. Neel, M.D., Owensboro
Lloyd G. Yopp, M.D., Louisville

Physician-Attorney Liaison Committee

Thomas M. Marshall, M.D., Louisville, Co-Chairman
Thompson R. Bryant, M.D., Lexington
Lee C. Hess, M.D., Florence
Gordon L. Hyde, M.D., Lexington

KMA-Kentucky Nurses Association Joint Practice Committee

Kenneth P. Crawford, M.D., Louisville, Co-Chairman
Ruth M. Coppedge, M.D., Hopkinsville
Joseph P. Hamburg, M.D., Lexington
Fred C. Rainey, M.D., Elizabethtown
James R. Schrand, M.D., Florence
Susan Powers, Lexington (student)
Wendy Daly, Louisville, (student)

Claims and Utilization Review Committee

William J. Sandman, M.D., Louisville, Chairman
Thomas A. Watson, M.D., Louisville, Co-Chairman
James G. Baker, M.D., Louisville
Alan Bornstein, M.D., Louisville (consultant)
McHenry S. Brewer, M.D., Louisville
Eugene H. Conner, M.D., Louisville
John H. Doyle, M.D., Louisville
Harold T. Faulconer, M.D., Lexington
William H. Fields, D.D.S., Louisville
Samuel W. Gehring, M.D., Flemingsburg
J. Roger Goodwin, M.D., Bowling Green
Stuart Graves, M.D., Louisville
Thomas A. Kelley, Jr., M.D., Louisville
Charles C. Kissinger, M.D., Henderson
Laszlo Makk, M.D., Louisville
Roy J. Meckler, M.D., Louisville
James E. Monin, M.D., Jamestown
Richard R. Nave, M.D., Louisville
John D. Noonan, M.D., Paducah
John W. Pate, M.D., Madisonville
John D. Perrine, M.D., Lexington
R. D. Pitman, M.D., Williamsburg
Kenneth T. Reichard, M.D., Louisville
Edward L. Scofield, M.D., Louisville
Steven Z. Smith, M.D., Louisville
Thomas E. Stevens, M.D., Ashland
Raymond C. Snowden, M.D., Hopkinsville
Gordon R. Tobin, II, M.D., Louisville
Sam H. Traughber, M.D., Hopkinsville
Kenneth Von Roenn, M.D., Louisville
Joseph G. Whelan, Jr., M.D., Louisville
A. Franklin White, M.D., Louisville

Committee on National Legislative Activities

Fred C. Rainey, M.D., Elizabethtown, Chairman
(Key Man for Senator Huddleston)
James A. Baumgarten, M.D., Owensboro
(Key Man for Congressman Natcher)
Carl Cooper, Jr., M.D., Bedford
(Key Man for Congressman Snyder)
William W. Hall, M.D., Owensboro
(Key Man for Senator Ford)
Stephen B. Kelley, M.D., Somerset
(Key Man for Congressman Rogers)

Wally O. Montgomery, M.D., Paducah
(Key Man for Congressman Hubbard)
David B. Stevens, M.D., Lexington
(Key Man for Congressman Hopkins)
Samuel D. Weakley, M.D., Louisville
(Key Man for Congressman Mazzoli)
Terry L. Wright, M.D., Elkhorn City
(Key Man for Congressman Perkins)

Committee on State Legislative Activities

Carl Cooper, Jr., M.D., Bedford, Chairman
Donald C. Barton, M.D., Corbin
Bennett L. Crowder, II, M.D., Hopkinsville
John E. Downing, M.D., Bowling Green
Lee C. Hess, M.D., Florence
Albert H. Joslin, M.D., Owensboro
Larry M. Leslie, M.D., Prestonsburg
William P. McElwain, M.D., Lawrenceburg
Wally O. Montgomery, M.D., Paducah
Preston P. Nunnelley, Jr., M.D., Lexington
Harvey A. Page, M.D., Pikeville
C. Kenneth Peters, M.D., Jeffersontown
John P. Stewart, M.D., Frankfort
Samuel D. Weakley, M.D., Louisville
Joseph G. Whelan, Jr., M.D., Louisville
Mrs. Phyllis Cronin, Lexington (Auxiliary Member)

Quick Action Committee Members:
Frank R. Pitzer, M.D., Hopkinsville
(President)
Ballard W. Cassady, M.D., Pikeville
(President-Elect)
Dwight L. Blackburn, M.D., Berea
(Chairman, Board of Trustees)
S. Randolph Scheen, M.D., Louisville
(Secretary-Treasurer)

Committee on Medicare and Other Governmental Medical Programs

Paul J. Parks, M.D., Bowling Green, Chairman (Area II)
Harold L. Bushey, M.D., Barbourville (Area III)
Peter C. Campbell, Jr., M.D., Louisville (Area I)
William F. Gee, M.D., Lexington (Area I)
R. Glenn Greene, M.D., Owensboro (Area II)
Larry M. Leslie, M.D., Prestonsburg (Area III)
Emanuel H. Rader, M.D., Pineville (Area II)
Walter H. Stepchuck, M.D., Harlan (Area III)
John M. Stoeckinger, M.D., Lexington (Area I)

Committee on HSAs

Harold L. Bushey, M.D., Barbourville, Chairman
William V. Banks, M.D., Erlanger
Henry R. Bell, M.D., Elkton
Peter P. Bosomworth, M.D., Lexington
Walter L. Cawood, M.D., Ashland
Marion A. Douglas, M.D., Magnolia
Oskar P. Friedlieb, M.D., Ashland
Allen E. Grimes, Jr., M.D., Lexington
Russell Howard, M.D., Murray
Hal E. Houston, M.D., Murray
Walter I. Hume, Jr., M.D., Louisville
Harvey A. Page, M.D., Pikeville
William D. Pratt, M.D., London
J. Wesley Johnson, M.D., Ashland
Marilyn M. Sanders, M.D., Owensboro
Howard A. Heringer, M.D., Ft. Mitchell
Tom R. Watson, M.D., Louisville
Terry L. Wright, M.D., Elkhorn City

Technical Advisory Committee on Physician Services (Title XIX)

Harold L. Bushey, M.D., Barbourville, Chairman
Donald C. Barton, M.D., Corbin
Winston L. Burke, M.D., Lexington
Robert T. Longshore, M.D., Covington
H. Burl Mack, M.D., Pewee Valley

Ex-Officio:

Robert N. McLeod, Jr., M.D., Somerset

Advisory Committee to the KMA Auxiliary

Robert S. Howell, M.D., Louisville, Chairman
Carl Cooper, Jr., M.D., Bedford
Frank R. Pitzer, M.D., Hopkinsville

Committee on Community and Rural Health

Don R. Stephens, M.D., Cynthiana, Chairman
Henry R. Bell, M.D., Elkton
David L. Cowen, M.D., Lexington
Salem M. George, M.D., Lebanon
Francis J. Halcomb, M.D., Scottsville
Oren W. Justice, M.D., Ashland
Walter L. O'Nan, M.D., Henderson
B. Frank Radmacher, M.D., Louisville
George R. Tanner, M.D., Fort Thomas
H. Thomas Weigert, M.D., Lexington

Committee on School Health, Physical Education, and Medical Aspects of Sports

R. Quinn Bailey, M.D., Danville, Chairman
Fred A. Austin, III, M.D., Louisville
Charles A. Barlow, M.D., Hopkinsville
Mark Bowden, M.D., Lexington
William H. Brooks, M.D., Lexington
Carl J. Brueggemann, M.D., Covington
James R. Burt, M.D., Bowling Green
Charles E. Caldwell, Jr., M.D., Florence
George C. Cheatham, M.D., Greensburg
Kenneth M. Eblen, M.D., Henderson
Marshall R. Johnson, M.D., Elizabethtown
Lowell McClary, M.D., Middletown

Cecil D. Martin, M.D., Carrollton
Garner E. Robinson, M.D., Ashland
Raymond G. Shea, M.D., Louisville
Kenneth L. Stinnette, M.D., Bardstown
Jerry C. Sutkamp, M.D., Ft. Thomas
Charles H. Veurink, M.D., Richmond
Ronald E. Waldridge, M.D., Shelbyville
William G. Wheeler, Jr., M.D., Lexington
Jerry L. Woolum, M.D., Pineville
Lee Saindon, Lexington, (student)
Robert Hash, Louisville (student)

Emergency Medical Care Committee

E. Truman Mays, M.D., Somerset, Chairman
W. Stephen Aaron, M.D., Louisville
G. Richard Braen, M.D., Lexington
Clyde A. Burgess, M.D., Ashland
Bennett L. Crowder, II, M.D., Hopkinsville
Joan F. McGlinn, M.D., Louisville
Dennis B. Kelly, M.D., Lexington
Willard L. Keith, M.D., Greenville
Henry N. Meiers, M.D., Bowling Green
Melayne Myers, M.D., Lexington
Arthur B. Richards, M.D., Louisa
Harry M. Roach, M.D., Mayfield
Robert W. Robertson, Jr., M.D., Paducah
Donald M. Thomas, M.D., Louisville
Thomas F. Whayne, Jr., M.D., Lexington
Charles A. Webb, M.D., Lexington
Paula Phelps-Weaver, Lexington (student)
Mrs. Warren D. Cox (Barbara), Louisville (Auxiliary Member)
Robert Hughes, Louisville (student)

Committee on Health Care Costs

Walter I. Hume, Jr., M.D., Louisville, Chairman
John M. Baird, M.D., Danville
Peter P. Bosomworth, M.D., Lexington
Walter R. Brewer, M.D., Lexington
Jerry N. Clanton, M.D., Louisville
Stanley J. Cryan, M.D., Louisville
Stuart Graves, Jr., M.D., Louisville
Robert S. Howell, M.D., Louisville
Charles C. Smith, Jr., M.D., Louisville
John E. Trevey, M.D., Lexington
Max E. Wheeler, M.D., Ashland

Membership and Placement Services Committee

John M. Baird, M.D., Danville, Chairman
Peter C. Campbell, Jr., M.D., Louisville
Don E. Cloys, M.D., Richmond
D. Kay Clawson, M.D., Lexington
Michael E. Daugherty, M.D., Lexington
Fred C. Hauck, M.D., Owensboro
Charles H. Nicholson, M.D., Lexington
Paul J. Parks, M.D., Bowling Green
William G. Ward, M.D., Louisville
Raymond D. Wells, M.D., Inez
Tim Garner, Lexington (student)
Mac DeCamp, Louisville (student)

Interspecialty Council

Paul J. Parks, M.D., Bowling Green, Chairman
Representatives of 22 specialty societies:
Kentucky Society of Allergy and Clinical Immunology
Martin P. Kaplan, M.D., Lexington
Kentucky Society of Anesthesiologists
Charles M. Brohm, M.D., Louisville
Kentucky Chapter, American College of Chest Physicians
Robert P. Belin, M.D., Lexington
Kentucky Dermatological Society
William M. Parsley, M.D., Louisville
Kentucky ENT Society
Roland W. Richmond, M.D., Louisville
Kentucky Society of Eye Physicians and Surgeons
Gary Wallace, M.D., Lexington
Kentucky Chapter, American College of Emergency Physicians
Peter D. Goodwin, M.D., Covington
Kentucky Chapter, American Academy of Family Physicians
William P. VonderHarr, M.D., Louisville
Kentucky Society of Internal Medicine
Lloyd G. Yopp, M.D., Louisville
Kentucky Neurosurgical Society
Thomas M. Marshall, M.D., Louisville
Kentucky Obstetric and Gynecologic Society
Mervel V. Hanes, M.D., Louisville
Kentucky Occupational Medical Association
William F. Hahn, M.D., Louisville
Kentucky Orthopaedic Society
Thomas D. Brower, M.D., Lexington
Kentucky Society of Pathologists
Robert H. Carnighan, M.D., Louisville
Kentucky Chapter, American Academy of Pediatrics
Thomas A. Courtenay, M.D., Louisville
Kentucky Chapter, American College of Physicians
Walter S. Coe, M.D., Louisville
Kentucky Society for Plastic and Reconstructive Surgery, Inc.
Raleigh R. Archer, M.D., Lexington
Kentucky Psychiatric Association
John F. Ice, M.D., Louisville
Kentucky Association of Public Health Physicians
H. M. Vandiviere, M.D., Lexington
Kentucky Chapter, American College of Radiology
James G. Lorman, M.D., Lexington
Kentucky Chapter, American College of Surgeons
James P. Moss, M.D., Louisville
Kentucky Urological Association
Lyndon S. Goode, M.D., Hopkinsville

Committee on Physicians' Health

David L. Stewart, M.D., Louisville, Chairman
Daniel W. Burke, M.D., Louisville
Keene M. Hill, M.D., Horse Cave
Ronald L. Kelley, M.D., Paducah
T. R. Miller, M.D., Lexington
Charles G. Nichols, M.D., Pikeville
James F. Rozelle, Hopkinsville
Nat H. Sandler, M.D., Lexington
Bruce A. Snider, M.D., Crestview Hills

Committee to Study the Constitution and Bylaws

Robert L. McClendon, M.D., Louisville, Chairman
Peter C. Campbell, Jr., M.D., Louisville
Bennett L. Crowder, II, M.D., Hopkinsville
Thomas L. Heavern, Jr., M.D., Highland Heights
R. J. Phillips, M.D., Owensboro

McDowell House Board of Managers

Laman A. Gray, Sr., M.D., Louisville, Chairman
Robert C. Bateman, M.D., Danville
Branham B. Baughman, M.D., Frankfort
C. Melvin Bernhard, M.D., Louisville
James L. Cogar, Harrodsburg
Eugene H. Conner, M.D., Louisville
Glenn U. Dorroh, M.D., Lexington
Morris M. Garrett, M.D., Covington
George Grider, Danville
W. Mack Jackson, M.D., Danville
David W. Kinnaird, M.D., Louisville
Blaine Lewis, Jr., M.D., Louisville
Terrell D. Mays, M.D., Elizabethtown
Mrs. Dennis (Brenda) Penn, Lexington
Dean Earl P. Slone, Lexington
Enos Swain, Danville
James Thomas, Harrodsburg
Colonel Charles Tucker, Louisville
Edward H. Walter, Jr., Danville

KMA Advisory Committee on KPRO

(To be appointed in December)

Advisory Committee to the Department for Human Resources

Frank R. Pitzer, M.D., Hopkinsville, President
Ballard W. Cassady, M.D., Pikeville, President-Elect
Dwight L. Blackburn, M.D., Berea, Chairman, Board of Trustees
Carl Cooper, Jr., M.D., Bedford, Chairman, Committee on State Legislative Activities

Rules Committee of the House of Delegates

Glenn U. Dorroh, M.D., Lexington, Chairman
John E. Downing, M.D., Bowling Green
R. Glenn Greene, M.D., Owensboro
Thomas L. Heavern, Jr., M.D., Highland Heights
Emanuel H. Rader, M.D., Pineville

Ex-Officio:

Bennett L. Crowder, II, M.D., Hopkinsville
Peter C. Campbell, Jr., M.D., Louisville

Ad Hoc Coordinating Committee on Peer Review

Robert S. Howell, M.D., Louisville, Chairman
Walter R. Brewer, M.D., Lexington
Alvin M. Churney, M.D., Louisville
Bennett L. Crowder, II, M.D., Hopkinsville
Frank M. Gaines, Jr., M.D., Louisville
William P. McElwain, M.D., Lawrenceburg
William J. Sandman, Jr., M.D., Louisville
E. C. Seeley, M.D., Lexington
Carl Wedekind, Louisville

Ad Hoc Committee on Physician Assistants

Carl Cooper, Jr., M.D., Bedford, Chairman
Donald C. Barton, M.D., Corbin
Harold D. Haller, Sr., M.D., Louisville
William P. McElwain, M.D., Lawrenceburg
Charles B. Spalding, M.D., Bardstown

Ad Hoc Committee on Leadership Conference

Frank R. Pitzer, M.D., Hopkinsville, Chairman
Ronald N. Collier, M.D., Louisville
Richard F. Hench, M.D., Lexington
Lee C. Hess, M.D., Florence
Harvey A. Page, M.D., Pikeville
R. J. Phillips, M.D., Owensboro

Ad Hoc Committee on IPAs

Henry R. Bell, M.D., Elkton, Chairman
Walter R. Brewer, M.D., Lexington
Harold L. Bushey, M.D., Barbourville
William P. McElwain, M.D., Lawrenceburg
C. Ray Potts, M.D., Louisville
Robert E. Smith, M.D., Covington

Committee on Long-Term Care

Dwight L. Blackburn, M.D., Berea, Chairman
C. Kenneth Peters, M.D., Louisville
John H. Prewitt, M.D., Lexington
Representatives of Health Care Facilities Association

THE JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION

Index to Volume 78—1980

January	Pages 1 to 58	July	Pages 387 to 444
February	Pages 59 to 116	August	Pages 445 to 514
March	Pages 117 to 184	September	Pages 515 to 584
April	Pages 185 to 246	October	Pages 585 to 638
May	Pages 247 to 312	November	Pages 639 to 704
June	Pages 313 to 386	December	Pages 705 to 824

SCIENTIFIC ARTICLES

A

Antimicrobial Agents, A Clinical Approach to the Choice of, Case #13: Acute Pyelonephritis, 15
Case #14: Acute Pharyngitis, 79
Case #15: Legionnaires' Disease, 143
Case #16: Fever and Chills in a Drug Addict, 203
Case #17: Septic Arthritis, 267
Case #18: Staphlococcal Pneumonia, 331
Case #19: Gram-Negative Bacillary Meningitis, 455
Case #20, Part A: Fever in Pregnancy, 531
Case #20, Part B: Fever in Pregnancy, 596
Case #21: Fever and Bone Pain, 662
Case #22: Recurrent Furunculosis, 722
Aneurysms, Anastomatic, 593

C

Chrohn's Disease—Selected Aspects, 643
Colitis, Acute Necrotizing With Distal Carcinoma, 399
Cutaneous Blastomycosis, An Unusual Presentation, 719

E

Emphyema Caused By Clostridium Perfrigens, 402
Enzyme Immunoassay: An Important Laboratory Test, 464
Extra Anatomic Grafts: An 11-Year Experience, 460

F

Femors—Infrapopliteal Bypass: An Alternative Approach for Limb Salvage, 147

G

Gastroduodenal Fistula, Spontaneous, 85
Genital Abnormalities in a Group of 500 Hysterosalpingograms, 23
Gynecology, Pediatric Adolescent, 525

H

Head Injuries, Early Management of, 9
Histoplasmin Sensitivity in Kentucky, A New Appraisal of, 405
Hypereosinophilic Syndrome: A Review of Clinical Manifestations and Therapy, 88
Hospice Care for the Terminally Ill, 658
Hypercalcemia in Malignancy, 275

L

L'illusion de Capgras—Syndrome or Penomenon, 125
Laplace, The Legacy of, 197
Laryngeal Trauma, Surgical and Vocal Rehabilitation of, 543

M

Microscopy, Diagnostic Electron, 71
Mixed Connective Tissue Disease in a Child, 601

N

Neonatal Sepsis, Recognition & Management of, 726
Nutritional Therapy, 323

P

Percutaneous Needle Biopsy of Pulmonary Masses, 259
Peritoneal Lavage, Diagnostic, A 10-Year Overview, 418
Polyposis, The Widening Definition of Familial, 29
Primary Lymphoma of the Thyroid and Hashimoto's Thyroiditis, 263

R

Recurrent Pancreatitis, Recurrent Electrocardiographic Abnormalities Associated With, 535
Regeneration of Organs in Animals & Humans, 133

S

Sepsis After Splenectomy: Current Status of Pneumococcal Vaccine, 219
Serious Effusion, Cytology of, 341
Sinus Syndrome, Sick, 669
Smallpox, The History of: An Old Story of Current Significance, 206
Stress and the Medical Student, 334

AUTHORS OF SCIENTIFIC ARTICLES

A

Adamkin, David H., 726
Akavarem, N. Reddy, 402
Albright, Leland, 9
Alessi, Paul J., 79
Andrews, James C., 662
Austin, E., Jr., 405

B

Baker, Barbara M., 543
Barnwell, Patricia A., 15
Bean, James R., 731
Beasley, Diana J., 9
Bell, Barbara, 275
Bivins, Brack A., 418
Blues, Ann, 658

C

Carstens, Per Henrik Becher, 71
Chick, Ernest W., 405
Chun, Chin Hak, 267
Compton, Suzanne B., 405

*Grand Rounds articles in italics

Coonrod, J. Donald, 219
Cronin, John, 658

D

Daugherty, Michael E., 418
DeSimone, Philip A., 88

F

Flanigan, Clyde, 405
Flowers, Nancy C., 535
Foreman, Charles David, 71
Forgey, Carolyn J., 726

G

Garretson, Henry D., 9
Griffen, Ward O., Jr., 418
Gruber, Gabriel G., 719
Guzzardi, Lawrence J., 464

H

Hamann, Scott R., 464
Hatfield, Danny R., 259
Havelda, Christopher J., 669
Hernandez, Calixto, 405
Hodge, Steven J., 719
Howard, John P., 601
Huang, Tsung-Yao, 85
Hyde, Gordon L., 460, 593

K

Khokhar, Nasiruddin, 402
Kurfees, James F., 197

L

Liebert, Carl W., Jr., 399
Lindenfeld, Thomas, 31
Loehle, Lawrence D., 341

M

Mackey, Bill, 405
Mahizhnan, Palamalai, 402
Mattingly, Sally, 147
Mays, Everett T., 133
Mays, Everett T., II, 133
McFarland, Edward G., 334
McIntyre, Brian, 460
McMahan, Anna, 169
McMillin, Rodney, 593
McMurry, Gorden T., 543
Melo, Julio C., 15, 79, 143, 203, 267, 331, 455, 531, 596, 662, 722
Miles, John P., 9

N

Nutt, James E., 535

P

Pass, Ted, III, 405
Peterson, Gary H., 85
Pitzer, Frank R., 405
Polk, Hiram C., Jr., 206

R

Raff, Martin J., 15, 79, 143, 203, 267, 331, 455, 531, 596, 662, 722
Ray, Joe Wayne, 206
Rolf, Sheri L., 263

S

Saag, Michael S., 722
Sachatello, Charles R., 418
Sanfilippo, Joseph S., 525
Sheikh, Hamid H., 23
Shields, Christopher B., 9
Shingleton, Davis, 125
Shraberg, David, 125
Sohi, Gurbachan S., 535

T

Templeton, William C., III, 203, 455, 531, 596
Tibbs, Phillip A., 731
Turner, James E., 719

V

Van Arsdall, John A., II, 15, 79, 143, 203, 331
Vanderboegh, Brian, 341

W

Waterfill, David B., 531, 596
Weitzel, William D., 125
Winkler, Charles F., 341
Woodring, John H., 259
Wright, Richard A., 323, 651

Y

Yam, Lung T., 341
Young, Byron, 731

SPECIAL ARTICLES

Beyond the Ivory Tower—Postgraduate Training at U of L, 95
Community Project in Pediatrics: An Effort to Influence Physician Distribution, 551
Flouridation in Rural Kentucky, 409
Frank R. Pitzer, M.D., 612
How Does the Idea of a Public Restroom in the Privacy of Your Home Strike You?, 617
KMA President Robert S. Howell, M.D., 354
Physician, You're Losing, 155
Senator John E. Trevey, M.D., 478
When The Bad Apples Get Barreled, 42

AUTHORS OF SPECIAL ARTICLES

Brown, C. Dale, 155
Elsner, Robert H., 617
Howard, John P., 95, 551
Matthew, W. H., 409
Schaefer, Karen, 409
Young, Donna, 354, 478, 612

EDITORIALS

A Man For All Seasons, 739
American Made, 679
Can The KMA Journal Be Improved?, 417
Comforting Certainties (reprint), 358
'Comforting Certainties'—Magic in Medicine? (reprint), 359
Cost-effective: The New Nemesis, 615
DLS, 475
The Audit, 161
The Author Replies—Intuition Cannot Be Created, 360
The Shah's Stone, 49
Doctors & Depression, 93
Health Priorities in Affluent Countries, 225
RX: Permanent & Total Disability, 285

AUTHORS OF EDITORIALS

Grider, Paul C., 416
Lorber, Arthur, 359
Miller, Milton F., 285, 679
Moss, James P., 49, 417, 738
Schrodt, G. Randolph, 225, 615
Smith, Stephen Z., 353, 739
Stewart, David L., 93, 360, 358-9
Overstreet, A. Evan, 161

SPECIAL FEATURES

Constitution and Bylaws, 799
Deceased Kentucky Physicians, 740
Digest of Proceedings, 1980 House of Delegates, 755
Index to Volume 78, Journal of KMA, 818
KMA Annual Meeting Section, 489
KMA Committees, 1980-81, 813
Poem—Crossing the Bar, 741
Scientific Exhibits Application for 1980 Annual Meeting, 63, 189

ASSOCIATIONAL NEWS

A

Actions of AMA House of Delegates—Principles of Medical Ethics, 573

B

Booklet Answers Patients' Questions on Health Insurance, 567

C

Corporate Visitation Program Begins With GE, 377

D

Digest of Board of Trustees Meeting, 306
Digest of Board of Trustees Meeting, December 12-13, 1979, 179
Digest of Board of Trustees Meeting, February 28, 1980, 241
Doctor Kleinert Receives Scientific Achievement Award, 430

E

Emergency Medical Care Meeting Scheduled for June 18-19, 179

H

Highlights of the 1980 KMA Annual Meeting, 688
Historical Exhibit Opens at U of L, 112
How KMA Monitors & Reacts to Pending Legislation, 111

J

JCAH Appoints Committee to Improve Communications, 629
JCAH Revises CPR Requirement for Medical Staff, 633

K

KEMPAC Elects Officers for 1980, 175
KMA Annual Meeting Notice, 114, 299
KMA Physician Recruitment Fair Scheduled for October 4, 431, 580
KMA Organization Chart, 53
KMA Provides Placement Service to Physicians, Communities, 752
KMA Sponsors Second Annual Physician Recruitment Fair, 751

L

Legislative Highlights, 376

N

Nominations Being Accepted for Three Annual KMA Awards, 298

O

Open Hearing On Ethics, 109

P

Practice Management Workshops Set for April 22-24, 106

R

Reference Committee Activity, 568
Report of CME Activities, 241, 432
Report on the 1980 Session of The Kentucky General Assembly, 300
Report on August Meeting of Board of Trustees, 627
Requirements for Reporting Child Abuse, 576
RKMSF Accepting Applications For Scholarship Loans, 51
Roll Call for House of Delegates, 693

S

Scientific Exhibits Application, 106, 236
Scientific Sessions Will Highlight 1980 KMA Annual Meeting, 567
Six New Loans are Awarded at RKMSF Annual Meeting, 432
Synergy in Leadership, April 1-2, 1980, 749

T

Two Guest Speakers Will Highlight Emergency Medical Care Seminar, 297

U

"Uncommon Problems in the Human Life Cycle" is This Year's KMA Annual Meeting Theme, 375

W

Workshops Keep Participants Involved at Emergency Medical Seminar, 428



WHEN ANXIETY AND TENSION MAGNIFY PAIN IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC®

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE. Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage specific parenteral electrolyte therapy for ketoacidosis and dehydration watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

Copyright © 1980, Wyeth Laboratories
All rights reserved

*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® ℂ℣

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless in the judgement of the physician, the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness headache, weakness, euphoria, dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatofoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatofoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

Copyright © 1980, Wyeth Laboratories
All rights reserved

Wyeth Laboratories
Philadelphia, Pa 19101

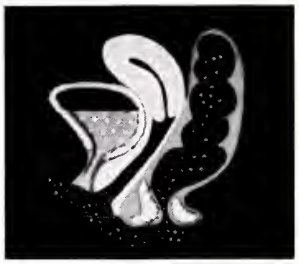
ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack

Physicians of Phil.
19 South 22nd St.
Philadelphia, PA 19103



ROCHE

actrim has shown high clinical effectiveness in recur-
nt cystitis as a result of its wide spectrum and dis-
nctive antimicrobial action in the urinary, vaginal and
wer intestinal tracts.

The probability of recurrent urinary tract infection
ppears to be enhanced by the establishment of large
umbers of *E. coli* or other urinary pathogens on the
aginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

This Book is due on the last date stamped below. No further preliminary notice will be sent. Requests for renewals must be made on or before the date of expiration.

DUE	DUE

A fine of one dollar will be charged for each week or fraction of a week the book is retained without the Library's authorization.

UNIVERSITY LIBRARY
BOOKBINDERS
PHILADELPHIA